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THE
CONFECTIONER.

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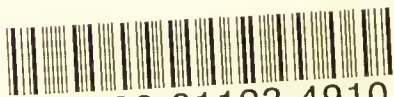


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THE
CONFECTIONER:

CONTAINING

THE METHOD OF MAKING ALL SORTS OF PRESERVES,
LOZENGES, ORNAMENTAL CAKES, ICES,
LIQUEURS, AND
GUM-PASTE ORNAMENTS.
SUGAR-BOILING, AND COMFIT MAKING.

By GEORGE READ.

A NEW EDITION, REVISED, CORRECTED, AND ENLARGED,

WITH

AN APPENDIX.

LONDON:
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P R E F A C E.

MUCH as there has been written in **Cookery Books** on the art of **Confectionary**, there are few, very few, works on the subject now extant which are practically written, and these are difficult to be obtained, even at high prices ; and, having been published some years since, they do not contain any of the modern improvements, or articles which have been introduced within these few years. The object of the present Treatise is to supply this deficiency, and to convey instruction in as plain and concise a manner as possible to the inexperienced, or those young men who have served their apprenticeships at provincial towns, and are not acquainted with the metropolitan practice and its improvements ; and also to apprentices, that they may be enabled to learn their business more efficiently than many masters can or will instruct them in it.

The style and character of the present work will be found quite different from anything which has preceded it. In the part relating to **Sugar-boiling** I have endeavoured to show the causes of the effects which take place at the different stages, with the uses to which each of the processes is

applied. The deficiency on Hard Confectionary which occurs in all other works will be found amply supplied in this. In the proportions for medicated lozenges I have preferred those which are ordered by the different Colleges of Surgeons in their pharmacopœias to those used by the trade, as being more likely to contain the true quantities of the different drugs which should compose them. It is from this source that they were originally derived, as at one time they formed no inconsiderable part of pharmacy; but they are now only made by confectioners, or a few wholesale druggists.

The Section on Ices I have endeavoured to render as plain and intelligible as possible, and although I have given general as well as definite rules for the mixture of each sort, yet the last cannot at all times be implicitly followed, but must be modified or altered with respect to the flavouring matter so as to suit the taste of the employer or the parties for whom they are intended; this should always be most scrupulously attended to, if it is wished to give satisfaction, as no fixed rules can be given which will admit of their being made to please all persons.

The business of confectionary is divided into several branches, some of them being quite distinct and separate from each other. The branch known as Hard Confectionary is literally the whole of the business, according to the strict

meaning of the word, which is derived from the French words *confitures*—comfits, things crusted over with dry sugar; and *confiturier*—confectioner, a maker or seller of comfits, or other sweetmeats. The other branches are the Ornamental and Soft Confectionary. The latter comprises everything connected with the oven, or all sorts of cakes and soft biscuits, and more particularly to the preservation of fruits; the other, as the name implies, to every description of ornaments necessary for the decoration of the table. Hard Confectionary still remains a distinct branch or trade of itself; in fact, many persons' sole occupation is the making of lozenges and comfits, termed pan-work. Some also combine with these the different articles connected with sugar-boiling and preserving. The latter are in general blended together, and mostly practised by cooks and pastry-cooks; but the chief business of a confectioner, especially in a nobleman's family, is alone connected with the ornamental department, and everything necessary for the **d**essert.

I have thought it requisite to mention this specifically, so as to prevent the occurrence of errors which parents and guardians of families often fall into respecting the nature of the business, and also with regard to the capacity of the child which they intend should be brought up to it. I have heard many say, "Never mind; he is a stupid fool, and may do very well to make

cakes." If making *cakes* were the sole object he would have to accomplish, *perhaps he might do* very well; but even this requires more ingenuity than is generally considered; and if the welfare of the child is studied, so as to enable him to obtain his livelihood in a respectable manner, they must find some means of enabling him to acquire a considerable deal more knowledge than is general with a common-place education, to enable him to compete with the talent at present in the labour-market. The person adapted for this business should be neat and cleanly in his habits, of a lively and ingenious mind, have a quick conception of design, a delicate taste, with a general knowledge of architecture, mythology, and the fine arts; for they are as requisite in the construction of a *Pièce Montée*, or an allegorical subject to embellish the table, as to an architect or sculptor in the construction of an expensive building or monument. I do not mean to infer that his information must be so extensive, or that he will be required to make the tour of Italy, Rome, and Greece, to study the original masters; but let him take Nature for his guide, with a peep at the Grecian and other statues in the British Museum occasionally, if possible; and if he possess the rudiments or principles of the art of design, he cannot fail, with a little attention and perseverance, to become an adept in the higher or ornamental branches of his business.

It is now necessary to say a little on the management of his work. Cleanliness, order, and punctuality, are the first and greatest objects to be attained. Avoid at all times what is termed working in a muddle,—that is, by having a quantity of tools around not required for present use, which not only hinder the time but occupy the space wanted for other purposes. The young apprentice should be very careful in observing this, as he has to attend upon the workmen and get them what is required for their use, and to assist them as far as he is able in the preparation of the different articles which are making, as well as to remove those tools which are dispensed with. Let him carefully note the quantity of ingredients which he is required to get for each thing, with the method which is used for mixing or putting them together, and the effect produced, as it is on *little things* that oftentimes the good or bad success of an article depends; perhaps every workman he may meet with may have some peculiar method of his own which differs from others; therefore he should observe *whose* ingenuity produces the most desired effect, and follow it accordingly. When the business of the day is over he should avail himself of every opportunity that offers to practise sugar-spinning, modelling, and gum-paste work, as it is by practice alone that proficiency in these is acquired. In the present day the various branches are so mixed and blended together that a man had

need be a good general workman to insure adequate employment, for without this the chances of a situation are extremely small, as it is only in large and respectable establishments that men are employed for any particular branch, and these are mostly wholesale firms; therefore I would advise all parents or guardians who wish to place lads out to learn the business, to apprentice them at some good shop, where the business is carried on in a general way, and where they will have to work at each department. The premium most probably required will vary from £50 to £100. Many first-rate workmen have learnt the business solely by being porters at respectable houses, where they have got on by degrees, and at last have sacrificed six or twelve months' time, with a payment of £10 or £20, to finish themselves. Masters are now very particular, and will not take improvers unless they have previously served their apprenticeship to the business.

PREFACE.

TO THE

IMPROVED EDITION.

THE high encomiums bestowed upon the former editions of this work in all parts of this country, as well as the continent, both by the press and the trade, has induced the author to thoroughly revise the work, and give many important additions in the form of an Appendix. In order to render this edition equal to the character given to the former ones, by the trade, that of being “the best work on the subject extant,” he has, in addition to his own enlarged experience, obtained the assistance of some of the best workmen in the different departments of the trade, who have given him much valuable information, particularly with respect to those little practical minutiae upon which the success of most things depends. To the trade in all parts of England, the author is

also indebted for many valuable suggestions, for which he begs to return his grateful acknowledgments.

The trade of a Confectioner, or rather that part of it known as "sugar boiling," is but of modern origin, not having been practised as a trade until within these twenty-five years, or even less. Before this time, little was done in this branch except the making of barley-sugar by the Pastry-cooks, or a few "bull's eyes" or "lollypops" by a few old women, or by those persons who visited the fairs, and the aforesaid barley sugar, bull's eyes, and lollypops, with the addition of "locusts" (treacle boiled and made into sticks and wrapped in paper) and "bachelor's buttons" (drops of sugar, similar to icing sugar, on paper), were the only things known; but, at the present day, the list of articles manufactured from "boiling goods" would be rather a lengthy one. Every week or month produces something new; thus, we get Tom Thumb's Drops, Jenny Lind's Rock, Albert Rock, &c., &c., the whole of which, if enumerated and described, would fill a volume as large as the present one, without giving

much additional information. The principles of the art being given, no more is required than to be perfect in them, and the manipulation of the sugar into the different forms, from which these things take their name, is then perfectly easy and practical; therefore only a few of the new preparations have been given, and those only that differ in some respects from the usual course of working.

The different receipts added for medicated lozenges, are the same as given in the Pharmacopœia, preferring these for the reasons before assigned in the first Preface, and also, because those used by the trade differ materially from each other in some of their proportions. Persons requiring those receipts, can get them from any good workman for a few pounds.

Many things equally important will be found in the Addenda; in short, every thing that could in the least degree add to the usefulness of the work has been given, and no expense has been spared to render it a perfect and a practical one; the whole being the result of extensive practice of the author, and his

friends in the trade, who have kindly assisted him in those parts not immediately in his own branches of the business.—

Before concluding, I will beg to give a few words of advice to young beginners and apprentices in the trade, for whom this work is more particularly intended. If you wish to become a perfect master of your business, seek to study *cause* and *effect*. To do this, you must become acquainted with the nature and properties of the materials you work with, and the principles by which the goods are produced. For this purpose learn as much of chemistry as belongs to your business, for it principally consists of chemical combinations, or alterations of the materials; and having acquired this, many things that appear difficult, and to the uninitiated unattainable, will be found easy of accomplishment, and any fault can then be readily perceived and remedied. To become a proficient in any business or manufacture, something more is required than mere mechanical expertness in the manufacture of the articles to be produced. With only this acquirement, you will be like a man

groping his way in the dark, not being certain whether you are right or wrong in any thing you are doing; and incapable of correcting any error that may occur, but by chance, which is but too frequently the case with many workmen. Having acquired that knowledge which gives the fundamental principles and bases of the various proceedings—it, combined with practice, will suggest many improvements in the manufacture, and superiority in the articles produced will be the result.

G. R.

THE CONFECTIONER.

SECTION I.—CONFECTIONARY.

As sugar is the basis or ground-work of the confectioner's art, it is essentially necessary that the practitioner should carefully study and observe the difference in its qualities, the changes which it undergoes or effects when combined with other articles in the process of manufacture, and also the different forms which it assumes by itself at various stages. Without this knowledge, a man will never become a thorough and efficient workman, and it can only be acquired by practice and experience.

The first process which it undergoes in the hands of the confectioner, is that of clarification. It is conducted on the same principle as the refining of sugar, although not carried out in every particular.

Clarification of Raw Sugar.—For every six pounds of sugar required to be clarified, take one quart of water, the white of an egg, and about half a teacupful of bullock's blood. Less than a pint will be sufficient for 112 pounds; but if a very fine, transparent, and colourless syrup is required, use either charcoal, finely powdered, or ivory-black, instead of the blood. Put the white of the egg in the water and whisk it to a froth, then add either of the other articles mentioned, and the sugar, place the pan containing the ingredients on the stove-fire, and stir them well with a spatula, until the

sugar is dissolved, and is nearly boiling. When the ebullition commences, throw in a little cold water to check it; this causes the coarser parts to separate more freely, by which means the whole of the impurities attach themselves to the clarifying matter used; continue this for about five minutes, using about one pint of water to every six pounds of sugar, or more, until you consider the whole of the dross is discharged, and there remains a fine clear syrup. Then place it by the side of the stove, and carefully remove with a skimmer the scum which has formed on the top: it may also be taken off as it rises, but I find the best method is to let it remain a short time after it is clarified before it is removed, otherwise, if you take it off as it rises, part of the syrup is also taken with it. When either charcoal or black is used, it must be passed through a filtering-bag made of thick flannel, in the shape of a cone, having a hoop fastened round the top to keep it extended, and to which strings are sewn that it may be tied or suspended in any convenient manner: what runs out at first will be quite black; return this again into the bag, and continue doing so until it runs fine and clear.

If a little lime, about a spoonful, or any other alkali is added to the sugar with the water, &c., it will neutralize the acid which all raw sugars contain, and they will be found to stand much better after they have been manufactured, by not taking the damp so soon. This is not generally done by the trade, but it will be found beneficial if practised.

To clarify Loaf Sugar.—This is clarified by mixing the whites of eggs with water, without any other assistance, for having been previously refined, it does not require those auxiliaries again to separate the coarser parts, unless it is of an inferior quality, or an extra fine syrup, as for bon-bons and other fancy articles, is required. When it is necessary to have a very fine

sparkling grain, in that case break your lump into small pieces and put it in a preserving-pan, with a sufficient quantity of water to dissolve it, in which has been mixed the white of an egg and powdered charcoal,* as for raw sugar, following those instructions already given. After the sugar has been drained from the bag, pass some water through to take off any which may be left in the chareoal, which you use for dissolving more sugar.

The scum should always be reserved, when ehareoal or blaek is not used, to mix with artieles of an inferior quality.

The best refined loaf sugar should be white, dry, fine, of a brilliant sparkling appearance when broken, and as close in texture as possible. The best sort of brown has a bright, sparkling, and gravelly look. East India sugars appear finer, but do not contain so much saccharine matter, yet they are much used for manufacturing the best sort of common sweetmeats, when elarified, instead of loaf sugar.

Degrees of boiling Sugar.—This is the priniepal

* Charcoal varies in its qualities, according to the wood from which it is prepared. That made from porous woods, such as the willow, alder, &c., is the best for clarifying liquids; animal charcoal, or bone black, is also equally good, on account of its light and porous nature; that made from hard woods is only fit for fuel, as it does not possess the clarifying and decolouring properties like that made from the more soft and porous woods. When newly prepared, or if it has been kept free from air, it has the property of absorbing all putrid gases; "it is also capable of destroying the smell and taste of a variety of animal and vegetable substances, especially of mucilages, oils, and of matter in which extractive abounds; and some articles are said to be even deprived of their characteristic odour, by remaining in contact with it, as valerian, galbanum, balsam of Peru, and musk. The use of charring the interior of water-casks, and of wrapping charcoal in cloths that have acquired a bad smell, depend upon this property. None of the fluid menstrua with which we are acquainted have any action whatever, as solvents, upon carbon."—*Paris's Pharmacologia.*

point to which the confectioner has to direct his attention; for if he is not expert in this particular, all his other labour and knowledge will be useless: it is the foundation on which he must build to acquire success in his undertakings.

There are seven essential points or degrees in boiling sugar; some authors give thirteen, but many of these are useless, and serve only to show a critical precision in the art, without its being required in practice; however, for exactness, we will admit of nine, viz.:—
 1. Small thread. 2. Large thread. 3. Little pearl.
 4. Large pearl. 5. The blow. 6. The feather.
 7. Ball. 8. Crack. 9. Caramel. This last degree derives its name from “a Count Albufage Caramel, of Nismes, who discovered this method of boiling sugar.”—*Gunter's Confectioner*.

In describing this process, I shall proceed in a different manner to other writers on the subject, by classing it under different heads, according to the uses to which it is applied.

SYRUP.

Under this head are comprised the degrees from the small thread to the large pearl; for at these points the sugar is kept in a divided state, and remains a fluid of an oily consistency. A bottle which holds three ounces of water will contain four ounces of syrup. The method of ascertaining those degrees, according to the usages of the trade, is as follows:—

Small Thread.—Having placed the clarified syrup on the fire, let it boil a little, then dip the top of your finger in the boiling syrup, and on taking it out apply it to the top of your thumb, when, if it has attained the degree, on separating them a small string will be drawn out a little distance, about as fine as a hair,

which will break and resolve itself into a drop on the thumb and finger.

Large Thread.—Continue the boiling a little longer, repeat the same operation as before, and a larger string will be drawn.

Little Pearl.—To ascertain this degree, separate the finger from the thumb as before, and a large string may be drawn, which will extend to nearly the distance the fingers may be opened.

Large Pearl.—The finger may now be separated from the thumb to the greatest extent before the thread will break.

CRYSTALLIZATION

This takes the degrees of the blow and feather. The particles of the sugar being now brought together within the sphere of their activity, the attraction of cohesion commences, whereby they attach themselves together and form quadrilateral pyramids with oblong and rectangular bases. This is generally, but improperly, termed candy, thereby confounding it with the degrees at which it grains, also termed candy. This certainly seems “confusion worse confounded;” but if things are called by their proper names, many of those seeming difficulties and technicalities may be avoided which tend only to confuse and embarrass the young practitioner, without gaining any desired end or purpose. If it were generally classed into the degrees of crystallization, the true meaning and use would at once be explained and understood by the greatest novice.

The nature and principle of this operation are these. First, as in the case of syrup (the first four degrees), *when the water has absorbed as much sugar as it is capable of containing in a cold state, by continuing*

the boiling, a further portion of the solvent (water) is evaporated, and sugar remains in excess, which, when exposed to a less degree of heat, separates itself, and forms crystals on the surface and sides of the vessel in which it is contained, and also on anything placed or suspended in it. But if it is exposed too suddenly to the cold, or disturbed in its action by being shaken, or if the boiling has been continued too long, the crystals will form irregularly by the particles being brought in too close contact, and run too hastily together, forming a mass or lump.

To obtain this part in perfection, the boiling should be gradual, and continued no longer than till a few drops let fall on a cold surface show a crystalline appearance, or after being removed from the fire a *thin* skin will form on the surface. It should then be taken from the fire and placed in a *less hot but not cold* place, and covered or put into a stove or closet to prevent the access of cold air. A few drops of spirits of wine, added when the sugar has attained the proper degree, will conduce to a more perfect crystalline form, scarcely attainable by any other means, as it has a great affinity with the water, thereby causing the sugar to separate itself more freely. It must be used with caution, as too much will cause it to grain.

To ascertain the Degree of the Blow.—Continue the boiling of the sugar, dip a skimmer in it and shake it over the pan, then blow through the holes, and if small bubbles or air bladders are seen on the other side, it has acquired this degree.

The Feather.—Dip the skimmer again into the sugar, and blow through the holes as before, and the bubbles will appear larger and stronger. Or if you give the skimmer a sudden jerk, so as to throw the sugar from you, when it has acquired the degree, it will appear hanging from the skimmer in fine long strings.

CANDY.

Sugar, after it has passed the degree of the feather, is of itself naturally inclined to grain, that is to candy, and will form a powder if agitated or stirred: for as the boiling is continued, so is the water evaporated until there is nothing left to hold it in solution: therefore that body being destroyed by heat, which first changed its original form to those we have already enumerated, as this no longer exists with it, it naturally returns to the same state as it was before the solvent was added, which is that of minute crystals or grains, being held together by the attraction of cohesion, unless, as before stated, they are separated by stirring.

The water being evaporated by boiling from the last degree, leaves a thin crust of crystals round the sides of the pan, which shows it has attained the candy height; and this crust must be carefully removed, as it forms, with a damp cloth or sponge, or the whole mass will candy if suffered to remain. To prevent this is the chief desideratum, of all further proceedings for which specific rules will be given in their proper places.

The remaining degrees can be ascertained after the following manner.

The Ball.—Provide a jug of clean cold water, and the stem of a clean tobacco pipe or a piece of round stick. First dip it in the water, then in the sugar, and again in the water;* take off the sugar which has adhered to it, and endeavour to roll it into a ball between the finger and thumb in the water: when this can be done, it has attained the desired degree. If it forms a large hard ball which will bite hard and adhere to the teeth when eaten, it is then termed the large ball, *et contra*.

* This should be performed as speedily as possible.

The Crack.—Follow the directions given for the ball. Slip the sugar off from the pipe or stick, still holding it in the water, then press it between the finger and thumb; if it breaks short and crisp, with a slight noise, it is at the crack.

Caramel.—To obtain this degree it requires care and attention, and also to be frequently tried, as it passes speedily from the crack to the caramel. Try it as before directed, and let the water be quite cold, or you will be deceived. If on taking it off the pipe it snaps like glass, with a loud noise, it has attained the proper degree; it will also, when it arrives at this point, assume a beautiful yellow colour; after this it will speedily burn, taking all the hues from a brown to a black; therefore to prevent this, dip the bottom of the pan into a pail of cold water as soon as it comes to caramel, as the heat which is contained in the pan and sugar is sufficient to advance it one degree; also be careful that the flame of the fire does not ascend round the sides of the pan, which will burn it.

In boiling sugar, keep the top of the pan partially covered from the time it commences boiling until it has attained the ball or crack: the steam which rises, being again thrown on the sides, prevents the formation of the crust or crystals.

To prevent its graining, add a little of any sort of acid when it is at the crack—a table-spoonful of common vinegar, four or five drops of lemon-juice, or two or three drops of pyroligneous acid: any of these will have the desired effect; this is termed greasing it: but remember that too much acid will also grain it, neither can it be boiled to caramel if there is too much. A little butter added when it first commences boiling will keep it from rising over the pan, and also prevent its graining. About as much cream of tartar as may be laid on a sixpence, and added to seven pounds of sugar with ~~the~~ water, or equal quantities of cream of tartar

and alum in powder, added when it boils, will also keep it from candying. If sugar is poured on a slab that is too hot it is very apt to grain; this is frequently the case after several casts have been worked off in rotation; therefore when you find it inclined to turn, remove it to a cooler spot, if possible, and not handle it any more than is necessary.

Sugar that has been often boiled or warmed is soon acted upon by the atmosphere, whereby it becomes clammy and soon runs, as it is weakened by the action the fire. Acid causes the same effect.

If it has passed the degree you intended to boil it at, add a little water, and give it another boil.

SECTION II.—SYRUPS.

THESE are either the juices of fruits, or a decoction or infusion of the leaves, flowers, or roots of vegetables, impregnated with a sufficient quantity of sugar for their preservation and retaining them in a liquid state.

A great portion of this class comes more under the notice of the apothecary than the confectioner; but it may now be considered, with lozenges, as a branch of pharmacy in the hands of the latter, the most agreeable of which are now manufactured by him to supply the place of fresh fruits, &c., when out of season, for the making of cooling drinks, ices, &c., for balls and routs.

General Rules and Observations.—Two things are essentially necessary to be observed, which are:—the proper methods of making decoctions and infusions. These require some knowledge of the nature and properties of vegetable matter.

The virtues of most plants are extracted by infusion, and this is generally the case with aromatic plants, and those whose properties depend on an essential oil;

for, in boiling, the whole of the aroma of the plant is dispersed, and the syrup loses that delicate flavour for which it is prized.

Aromatic herbs, and the leaves of plants in general, yield their virtues most perfectly when moderately dried. Cold water extracts from these in a few hours the lighter, more fragrant and agreeable parts, and then begins to take up the more ungrateful and grosser. By pouring the same liquor on fresh parcels of the herb it becomes stronger, richer, thicker, and balsamic.

Those only should be decocted whose principles consist of mucilage, gum, or resin, and require boiling to extract them.

The compact resinous woods, roots and barks, yield their virtues most freely while fresh. Dry, they yield little to cold or moderately warm water, and require it to be boiling. By this process the grosser, more fixed saline and mucilaginous parts are dissolved, the resinous melted out, and the volatile dissipated.

Infusions.—"These are watery solutions of vegetable matter, obtained by maceration, either in hot or cold water, with the assistance of ebullition. In selecting and conducting the operation, the following general rules should be observed:—

"1st. Infusion should always be preferred before decoction, where the virtues of the vegetable substance reside in volatile oil, or in principles which are easily soluble; whereas, if they depend upon resino-mucilaginous particles, decoction is an indispensable operation.

"2nd. The temperature employed must be varied according to the circumstances of each case, and infusion made with cold is in general more grateful but less active than one made with heat.

"3rd. The duration of the process must likewise be regulated by the nature of the substances; for the infusion will differ according to the time in which the water has been digested on the materials; thus the

aroma of the plant is first taken up, then in succession the colouring, astringent, and gummy parts.

Decoctions.—"These are solutions of the active principles of vegetables, obtained by boiling them in water.

"1st. Those principles only should be decocted whose virtues reside in principles which are soluble in water.

"2nd. If the active principle be volatile, decoction must be an injurious process; and if it consists of extractive matter, long boiling, by favouring its oxidization, will render it insipid, insoluble, and inert.

"3rd. The substances to be decocted should be previously bruised or sliced, so as to expose an extended surface to the action of the water.

"4th. The substances should be completely covered with water, and the vessel slightly closed, in order to prevent as much as possible the access of air; the boiling should be continued without interruption, and gently.

"5th. In compound decoctions, it is sometimes convenient not to put in all the ingredients from the beginning, but in succession, according to their hardness, and the difficulty with which their virtues are extracted; and if any aromatic or other substances containing volatile principles, or oxidizable matter, enter into the composition, the boiling decoction should be simply poured upon them, and covered up until cold.

"6th. The relative proportions of different vegetable substances to the water must be regulated by their nature. The following general rule may be admitted. Of roots, barks, or dried woods, from two drachms to six to every pint of water: of herbs, or flowers, half that quantity will suffice.

"7th. The decoction ought to be filtered through linen while hot, as important portions of the dissolved matter are frequently deposited on cooling; care must also be taken that the filter is not too fine, for it frequently happens that the virtues of a decoction depend

upon the presence of particles in a minutely divided state."—*Paris's Pharmacologia*.

All acid syrups ought to have their full quantity of sugar, so as to bring them to a consistence without boiling, because the very action of much heat destroys their acidity, and makes them liable to candy; and this more particularly holds good where the infusion or juice, &c., has any fragrantcy in flavour, because the volatile oil is dissipated by boiling. The same observation is also applicable to those infusions of flowers which give out their colour, and which is necessary to be retained, such as violets, pinks, &c., as boiling injures them.

Those syrups which are made from decoctions, and do not take a sufficient quantity of sugar to bring them to a due consistence without boiling, require to be clarified so as to render them transparent; but this is often an injury, as the whites of eggs take off some of their chief properties with the scum; therefore the decoction should first be rendered clear by settling or filtering, and the sugar should be clarified and boiled to the height of the feather or ball before the decoction is added, when it must be reduced to the proper degree.

The best and most general method of making syrups is to add a sufficient quantity of the finest loaf-sugar, in powder, with the juice or infusion; stirring it well until a small portion settles at the bottom, then place the pan in a larger one containing water; this is termed the *bain-marie*; put it on the fire, and the heat of the water as it boils will dissolve the sugar; when this has been thoroughly effected, take it off and let it cool; if more sugar is added than the quantity above named, it will separate in crystals, and not leave sufficient remaining in the syrup for its preservation. (See observations on Sugar-boiling). When cold, put it into small bottles, fill them, cork closely, and keep in a dry cool place. Be particularly careful that no tinned articles are used in the making

of syrups from the juice of red fruits, as it will act on the tin and change the colour to a dead blue.

Raspberry Syrup.—One pint of juice, two pounds of sugar. Choose the fruit either red or white, mash it in a pan, and put it in a warm place for two or three days, or until the fermentation has commenced. All mucilaginous fruits require this, or else it would jelly after it is bottled. Filter the juice through a flannel bag, add the sugar in powder, place in the bain-marie, and stir it until dissolved; take it off, let it get cold, take off the scum, and bottle it.

Raspberry Vinegar Syrup.—One pint of juice, two pints of vinegar, four pounds and a half of sugar. Prepare the juice as before, adding the vinegar with it, using white vinegar with white raspberries; strain the juice and boil to the pearl.

Three pounds of raspberries, two pints of vinegar, three pounds of sugar. Put the raspberries into the vinegar without mashing them, cover the pan close, and let it remain in a cellar for seven or eight days; then filter the infusion, add the sugar in powder, and finish in the bain-marie. This is superior to the first, as the beautiful aroma of the fruit is not lost in the boiling, as may be well known in the first preparation by its scenting the place where it is done, the fruit may also be afterwards used with more for raspberry cakes.

Currant Syrup.—One pint of juice, two pounds of sugar. Mix together three pounds of currants, half white and half red, one pound of raspberries, and one pound of cherries, without the stones; mash the fruit and let it stand in a warm place for three or four days, keeping it covered with a coarse cloth or piece of paper with holes pricked in it to keep out any dust or dirt. Filter the juice, add the sugar in powder, finish in the bain-marie, and skim it. When cold, put it into bottles, fill them, and cork well.

Morello Cherry Syrup.—Take the stones out of the

cherries, mash them, and press out the juice in an earthen pan; let it stand in a cool place for two days, then filter: add two pounds of sugar to one pint of juice, finish in the bain-marie, or stir it well on the fire, and give it one or two boils.

Mulberry Syrup.—One pint of juice, one pound twelve ounces of sugar. Press out the juice, and finish as cherry syrup.

Gooseberry Syrup.—One pint of juice, one pound twelve ounces of sugar. To twelve pounds of ripe gooseberries add two pounds of cherries without stones, squeeze out the juice, and finish as others.

Lemon Syrup.—One pint and a quarter of juice, two pounds of sugar. Let the juice stand in a cool place to settle. When a thin skin is formed on the top, pour it off and filter, add the sugar, and finish in the bain-marie. If the flavour of the peel is preferred with it, grate off the yellow rind of the lemons and mix it with the juice to infuse, or rub it off on part of the sugar and add it with the remainder when you finish it.

Orange Syrup.—As lemon syrup.

Orange-Flower Syrup.—Picked orange flowers one pound, sugar three pounds. Take one half of the sugar and make a syrup, which boil to the large pearl, put the flowers in a basin or jar, and pour the syrup on them boiling hot, cover the jar or basin quite close and let them infuse in it for five or six hours, then drain off the syrup, boil the remaining portion of sugar, and pour over them as before; when cold, strain and bottle.

Sirup de Capillaire—*Syrup of Maidenhair.*—There are several sorts of maidenhair, but the best is that of Canada, which has a pleasant smell joined to its pectoral qualities. The true Maidenhair—*Capillis Veneris*—is a native of Italy and the southern parts of France. It has an agreeable but very weak smell. Common or English Maidenhair—*Trichomanes*—is usually substituted for the true, and occasionally for the Canadian.

Its leaves consist of small round divisions, growing as it were in pairs. It grows on rocks, old walls, and shady banks, and should be gathered in September. Black Maidenhair—*Adiantum Nigrum*—has smooth and shining leaves, the middle rib being black, and the seeds are all spread on the back of the leaf. It grows on shady banks, and on the roots of trees. White Maidenhair—Wall Rue—Tent Wort—*Ruta Murana Salvia Vitæ*.—The leaves of this are shaped something like rue, and covered all over the back with a small, seed-like dust. Golden Maidenhair—*Muscus Capillaris*—grows in moist places, and the pedicle arises from the top of the stalk. I have given these particulars, because I find they are often substituted one for the other by persons who are not aware that there is any difference. Although all of them have nearly the same qualities, only two have a volatile oil, but they are all mucilaginous.

Canada capillaire two ounces, sugar two pounds. Chop the capillaire into small bits, and make as orange-flower syrup. By this method the oil is not allowed to escape, which, being exceedingly odoriferous and volatile, is soon dissipated if boiled: or make a cold infusion (See Infusions) of the plant by putting one quart of water to four ounces of capillaire, add four pounds of sugar, and finish in the bain-marie, adding one ounce of orange-flower water.*

Simple syrup, flavoured with orange-flower water, is usually substituted for it.

Syrup of Liquorice.—Liquorice-root two ounces, white maidenhair one ounce, hyssop half an ounce, boiling water three pints; slice the root and cut the

* The pectoral quality of this syrup—for it is often sold for such purposes in shops—would be much improved if made with the addition of liquorice-root, as ordered by the Pharmacopœias—"Five ounces of capillaire, two ounces of liquorice-root, six pints of water; white sugar, a sufficient quantity; two ounces of orange-flower water."

herbs small, infuse in the water for twenty-four hours, strain, and add sufficient sugar, or part sugar and honey, to make a syrup; boil to the large pearl. An excellent pectoral.

Syrup of Violets.—One pound of violet flowers, one quart of water, four pounds of sugar. Put the flowers, cleared from their stalks and calx, into a glazed earthen pan; pour on the water boiling hot, and stop the pan quite close; let it remain in a warm place for a day, then strain off the infusion through a thin cloth; add the sugar, and place in the bain-marie; stir it well, and heat it until you can scarcely bear your finger in it; then take it off, and when cold, bottle. A laxative. This syrup is often adulterated by its being made with the flowers of heartsease, or columbine scented with orrice-root, and coloured.

Syrup of Pinks.—Clove pinks, one pound eight ounces, water two pints and a half, sugar three pounds. Let the flowers be fresh gathered, cut off the white points of the petals, and weigh the red part. Finish as syrup of violets. This syrup may be made with a cold infusion of the flowers, first pounding them with a little water in a marble mortar. Finish as before. If the flowers of the clove pink cannot be obtained, use other pinks, adding a few cloves to infuse with them so as to give the flavour.

Syrup of Roses.—The dried leaves of Provence roses eight ounces, double rose leaves six ounces, water one quart, sugar four pounds. Pour the water on the leaves, when nearly boiling, into a glazed earthen vessel, cover it quite close, and let it remain in a warm place for a day; then strain, and finish as violets. The leaves of the damask rose are purgative.

Syrup of Wormwood.—There are three sorts of wormwood most generally known,—the common, sea, and Roman. The first may be distinguished by its broad leaves, which are divided into roundish segments.

of a dull green colour above, and whitish underneath: its taste is an intense and disagreeable bitter. The sea wormwood has smaller leaves, and hoary both above and underneath; it grows in salt marshes, and about the sea coasts: the smell and taste are not so strong and disagreeable as the common. The Roman differs from the others by the plant being smaller in all its parts; the leaves are divided into fine filaments, and hoary all over, the stalk being either entirely or in part of a purple colour. Its smell is pleasant, and the bitterness not disagreeable: it is cultivated in gardens. The sea wormwood is generally substituted for it.

The tops of Roman wormwood two ounces, water one pint, sugar two pounds. Make an infusion of the leaves in warm water, strain, add the sugar to the infusion, and boil to the pearl. If the common wormwood only can be obtained, put the tops into three times the above quantity of water, and boil it over a strong fire until reduced to a pint. This will deprive it of part of its bitterness and disagreeable smell.

Syrup of Marshmallows—Sirop de Guimauve.—Fresh mallow roots eight ounces, water one quart, sugar three pounds. Cleanse the roots, and slice them; make a decoction (See Decoctions), boiling it a quarter of an hour, so as to obtain the mucilage of the root; strain and finish as wormwood. One ounce of liquorice-root and one ounce of white maidenhair, with a few stoned raisins, may be added.

Syrup of Coltsfoot.—Fresh coltsfoot flowers one pound eight ounces, water one quart, sugar three pounds. Pick the flowers about February, and make an infusion of them with hot water; strain, and finish as wormwood syrup. Two or three handfuls of the leaves may be pounded and infused instead of the flowers.

Syrup of Ginger.—Ginger two ounces, water one pint, sugar two pounds.

Slice the root if fresh, or bruise it if dried ; pour the water on it boiling, and let it macerate in a warm place for a day, then strain, and boil to the pearl.

Syrup of Almonds—Sirop de Orgeat.—One pound of sweet almonds, four ounces of bitter ones, one pint and a half of water, sugar three pounds, orange-flower water two ounces.

Blanch the almonds, and as they are blanched throw them into cold water ; when they are finished, take them out and pound them in a marble mortar, sprinkling them with a little orange-flower water to prevent their oiling, or use water with the juice of a lemon : add sufficient in the pounding to reduce them to a paste, and when quite fine add half a pint more water ; mix, and strain through a tamis cloth, twisted tight by two persons : receive the milk which comes from the almonds into a basin ; what is left in the cloth must be pounded again with some of the water, and strained. Continue this until the whole of the milk is obtained, and the water is consumed ; then clarify, and boil the sugar to the crack ; add the milk of almonds, and reduce it to the pearl ; then strain it again, add the orange-flower water, and stir it well until nearly cold ; when cold, bottle ; shake the bottles well for several succeeding days, if you see it at all inclined to separate, which will prevent it.

Sirop de Pistache is made in the same manner, colouring it green with a little spinach.

Syrup of Coffee.—Fresh roasted Mocha coffee two pounds, water one quart, sugar three pounds eight ounces. Grind the coffee in a mill, and make a cold infusion with the water in a close vessel ; let it stand for a day, then filter it through blotting-paper ; add the sugar, and finish in the bain-marie.

Syrup of Rum Punch.—Jamaica rum one quart, the juice of twelve or fourteen lemons, sugar four pounds. Rub off the yellow rind of half of the lemons

on a piece of the sugar, and scrape it off with a knife into a basin as it imbibes the oil ; clarify and boil the remaining portion to the crack ; strain the juice into the rum, and add to it the sugar with that on which the peels were rubbed ; mix together, and give it one boil. The yellow rind of the peels may be cut off very thin, and infused in the spirit for some days before the syrup is made.

Brandy and Wine Syrups may be made in the same manner.

SECTION III.—CRYSTALLIZED SUGAR, AND ARTICLES CRYSTALLIZED, COMMONLY CALLED CANDIES.

Crystallized or Candied Sugar.—Provide a round mould, smaller at the bottom than the top, of any size you may think proper, made either of tin or copper, with holes pierced round the sides about three inches asunder, so as to fasten strings across in regular rows from the top to the bottom, leaving sufficient room for the sugar to crystallize on each string without touching, or it will form a complete mass ; paste paper round the outside to prevent the syrup from running through the holes. Have the mould prepared, and let it be clean and dry ; take sufficient clarified syrup to fill the mould, and boil it to the degree of crystallization or the feather, and add a little spirit of wine ; remove it from the fire, and let it rest until a thin skin is formed on the surface, which you must carefully remove with a skimmer ; then pour it into the mould, and place it in the stove, where you let it remain *undisturbed* for eight or nine days, at 90 degrees of heat, or half that time at 100 ; then make a hole, and drain off the superfluous sugar into a pan placed below to receive it ; let it drain quite dry, which will take about twelve hours ; then wash off the paper from the mould with boiling

water, place it near the fire, and keep turning it to warm it equally all round; then turn it up and strike the mould rather hard upon the table, when the sugar will relieve itself and come out: put it on a stand or sieve in the stove, raise the heat to 120 degrees, and let it remain until perfectly dry. Particular attention should be paid to the heat of the stove, which must be kept regular and constant, and this can easily be accomplished at a small expense with many of the patent stoves which are now in general use, and also without causing any dust. A Fahrenheit's or Reaumur's thermometer should be so placed that the heat may at all times be ascertained without opening the stove.

This may be coloured with prepared cochineal, or other liquid colour, or by grinding any particular colour with the spirits of wine, and adding it to the syrup before it comes to the feather.

Fruits to Crystallize.—Have a square or round tin box, smaller at the bottom than the top, with wire gratings made to fit at convenient distances, and having a hole with a tube or pipe to admit a cork, and drain off the syrup. Take any of the preserved fruits wet (which see), drain from them the syrup, and dip them in luke-warm water to take off any syrup which may adhere to them; dry them in the stove; when dried, place them in layers on the gratings, side by side, so as not to touch each other; continue in this manner with any sort of fruit until the box is full; then fix the whole with a weight, to keep it steady. Boil a sufficiency of clarified sugar to fill the box to the degree of crystallization or the blow, add a little spirit of wine, and remove it from the fire. When a thin skin has formed on the top, remove it carefully with a skimmer, and pour the sugar into the mould; place it in the stove at 90 degrees of heat, and let it remain for twelve hours, then drain off the syrup into a pan from the tube at bottom, and let it remain in the stove

until quite dry; then turn them out by striking the box hard upon the table, separate them carefully, and put them in boxes with paper between each layer. When different fruits, paste, knots, &c., are mixed together indiscriminately, it is termed mille-fruit candy. Any sort of fruit or gum pastes, when thoroughly dried, may be crystallized in the same manner. When the syrup is drained off, if you find the size of the crystals is not large enough, another lot of syrup may be prepared and poured over it; let it remain in the stove for seven or eight hours, then drain and finish as before.

If small pieces of stick are pushed down at each corner, or in any other vacancy, when you fill the mould, one of these may be withdrawn at any time you may wish to ascertain the size of the crystals, which will save the trouble of giving a second charge of sugar.

Crystallized Chocolate.—Prepare some sugar, as in the preceding articles, and pour it into the box. When a thin crust is formed on the top, make a hole on one side, and push the articles previously shaped with chocolate, as for drops, gently under with your finger; put them in the stove to crystallize, as other articles. After the syrup is drained off, and the articles dried, they must remain until quite cold before being turned out, as the chocolate continues soft for some time.

Liqueur Rings, Drops, and other Devices.—These are all made after the same manner. A square box is necessary, which you fill with very dry starch powder. Sugar, powdered very fine and dried, will answer the same purpose. The depth of the box should be suited to the articles intended to be made. Shake the box, or pass a knife repeatedly through the powder, that it may be solid; smooth the surface with a straight piece of wood; have a thin piece of flat board, on which is fastened a number of little devices, about an

inch asunder, and to suit the width of the box ; these may be made either of lead, plaster, or wood, in the form of rings, diamonds, stars, bottles, scissors, harps, shoes, or any other form your fancy may suggest ; make the impressions in the powder in regular rows, until the box is full ; then prepare some sugar as for the preceding articles, boiling it to the blow, and flavouring it with any sort of spirit or liqueur, such as brandy, rum, noyau, Maraschino, cinnamon, rosolis, &c., colouring the syrup accordingly. It should be prepared in a pan with a lip to it. When a thin skin has formed on the top, place a cork in the lip of the pan, but not to close it, allowing a space for the sugar to run out, the cork being merely to keep back the skin ; then fill the impressions you made in the powder and place them in the stove at 90 degrees ; let them remain a day, then take them out, and their surfaces will be found quite hard and solid ; brush the powder from them with a light brush, when they may either be painted, crystallized, or piped. Many of these bon-bons are beautifully piped and coloured to represent dogs, horses, costumes, and theatrical characters ; the fur on the robes is imitated with white or coloured sugar in coarse grains, and lace-work is done by means of a pin.

Liqueur drops are made with the impression of half a ball to any required size, as other forms. If the flat parts of two are moistened, put together, and dried in the stove, they will form drops perfectly round.

To form a Chain with Liqueur Rings.—Have some moulds to form the impressions in powder, as in the preceding, in the shape of the links of a chain ; fill them with syrup at the blow, as before, and put them in the stove for a day ; when they are hard and fit to be taken out, place them on their ends in the powder ; have another mould of a link in two halves,

and with this form the impression between each of the others so as to make it complete; then fill them, and finish as before.

SECTION IV.—CANDY.

The articles that come under this head are made by the sugar being brought to the ball, when it is grained by rubbing it against the sides of the pan. From this all fancy articles are made, such as fruit, eggs, cups, vases, &c.

Ginger Candy.—Take clarified syrup and boil it to the ball; flavour it either with the essence of ginger, or the root in powder; then with a spoon or spatula rub some of it against the side of the pan until you perceive it turn white; pour it into small square tins, with edges or paper cases, which have been oiled or buttered, and put it in a warm place, or on a hot stone, that it may become dappled. The syrup should be coloured yellow, whilst boiling, with a little saffron.

Peppermint, Lemon, and Rose Candy are made after the same manner, colouring the lemon with saffron, and the rose with cochineal.

Coltsfoot or Horehound Candy.—Make a strong infusion of the herbs (see Infusions, under the head of Syrups), and use it for dissolving the sugar, instead of taking syrup; raw sugar is mostly used for those candies. Boil it to the ball, grain it, and finish as ginger candy.

Artificial Fruit, Eggs, &c.—Prepare moulds with plaster of Paris, from the natural objects you wish to represent; make them in two, three, or more pieces, so as to relieve freely, and have a hole at one end into which the sugar may be poured; let them be made so as each part may be fitted together exactly; and for this purpose make two or three round or square in

dentions on the edge of one part, so that the corresponding piece, when cast, will form the counterpart, which may at all times be fitted with precision. Let the object you would take the cast from be placed in a frame made either of wood or stiff paper, embed a part of it in fine sand, soft pipe-clay, or modelling wax, leaving as much of the mould exposed as you wish to form at one time, and oil it with sweet-oil; mix some prepared plaster with water, to the consistency of thick cream, and pour over it; when this is set, proceed with the other portions in the same manner until it is complete. Let them dry and harden for use.

Take a sufficient quantity of syrup (clarified with charcoal or animal black) to fill the mould, and boil it to the small ball; rub some of it against the side, so as to grain it; when it turns white, pour it into the moulds; take them out when set, and put them into the stove, at a moderate heat, to dry. The moulds must be soaked for an hour or two in cold water previously to their being used, which will be found better than oiling them, as it keeps the sugar delicately white, which oil does not. Colour your articles according to nature with liquid colours (see Colours) and camel's-hair pencils, or the usual pigments sold in boxes may be used. If a gloss is required, the colours should be mixed with a strong solution of gum Arabic or isinglass, to the desired tint. Eggs and fruit may be made as light and apparently as perfect as nature, by having moulds to open in two, without any orifice for filling them. Fill one-half with the grained sugar, immediately close the mould, and turn it round briskly that it may be covered all over equally. To accomplish this, it is necessary to have an assistant, that it may be done as speedily as possible.

Burnt Almonds.—Take some fine Valencia or Jordan almonds, and sift all the dust from them; put

a pint of clarified syrup into the pan for each pound of almonds, and place it with the almonds on the fire ; boil to the ball, then take it off and stir the mixture well with a spatula that the sugar may grain and become almost a powder, whilst each almond has a coating. Put them into a coarse wire or cane sieve, and sift all the loose sugar from them, and also separate those which stiek together. When cold, boil some more clarified syrup to the feather, put in the almonds, give them two or three boils in it, take them from the fire, and stir them with the spatula as before, until the sugar grains ; sift and separate them, and keep them in glasses or boxes. A third coat may be given them in the same manner as the second, if they are required large.

Burnt Almonds—Red.—The same as the last, using prepared cochineal to colour the syrup whilst it is boiling.

Filberts and Pistachios.—These are done the same as burnt almonds, but they are usually denominated prawlings, the nuts being only put into the sugar for two or three minutes before it is taken from the fire, and stirred.

Common Burnt Almonds.—These are made with raw sugar and skimmings, if you have any. Put some water with the sugar to dissolve it ; when it is near boiling, add the almonds, and let them boil in it until it comes to the small ball ; or when the almonds crack, take them from the fire, and stir them with a spatula until the sugar grains and becomes nearly a powder ; put them into a sieve, and separate the lumps.

Orange Prawlings.—Take four or five China oranges, and cut off the peel in quarters, or small lengths ; take off all the pith or white part of the peel, leaving only the yellow rinds, and cut in small pieces, about an inch long, and the size of pins. Have about a pint of clarified sugar boiling on the fire ; when it comes to the blow, put in the pieces of peel, and let

them boil until the sugar attains the small ball ; take them off, and stir them with the spatula until the sugar grains and hangs about them ; sift off the loose sugar ; when cold, separate and keep them in a dry place.

Lemon Prawlings.—As orange.

SECTION V.—CRACK AND CARAMEL.

THESE comprehend all articles in sugar-boiling which eat short and crisp. They are used for all sorts of ornamental sugar-work. The rules and observations already laid down under this head must be particularly noted, especially those for greasing the sugar so as to prevent its graining.

Barley Sugar.—Boil some clarified loaf sugar to the crack or caramel degree, using a little acid to prevent its graining : pour it out on a marble slab, which has been previously oiled or buttered. Four pieces of iron, or small square bars, are usually employed to form a sort of bay, to prevent the sugar running off the stone, which is necessary in large casts. When the edges get set a little, remove the bars, and turn them over into the centre. This is occasionally flavoured with lemons. When it is required, pour a few drops of the essential oil of lemons in the centre, before the edges are folded over, then cut it into narrow strips with a large pair of scissors or sheep-shears. When nearly cold, twist them, put them into glasses or tin boxes, and keep them closed to prevent the access of air. It is seldom boiled higher than the crack, and saffron is used to make it the colour of caramel.

This derives the name of barley sugar from its being originally made with a decoction of barley, as a demulcent in coughs, for which it is now most generally used.

Barley Sugar Drops.—Boil some sugar as for the preceding. Spread some finely powdered and sifted loaf sugar on a table or tea-tray, with a piece of stick,

round at the end similar to the half of a ball: make several holes, into which you run the sugar from a lipped pan, or it may be dropped on an oiled marble slab with a funnel, letting only one drop fall at a time; or from the lip pan, separating each drop with a small knife, or a straight piece of small wire; take them off the stone with a knife, mix them with powdered loaf sugar, sift them from it, and keep in glasses or tin boxes.

Barley Sugar Tablets or Kisses.—Spread some sugar, as for the last; have a piece of wood about an inch and a half thick, with the surface divided into small squares, each being about an inch, and half an inch in depth; with this form the impressions in the sugar, and fill them with sugar boiled as for drops, flavouring it with essence of lemon; or instead of this it may be poured out in a sheet on an oiled marble slab, as for barley sugar, and when nearly cold divide it into pieces with a tin frame, having small square divisions, when the whole sheet may be divided at once by pressing hard on it so as to cut it nearly through. When cold, separate them and mix them with powdered sugar, take them out and fold them separately in fancy or coloured papers, with a motto on each. They are also occasionally made into balls thus,—First cast the sugar in a sheet on an oiled marble slab; when the edges are set, fold them in the middle, then oil a small square tin with edges to it, put the sugar in this, and place it under the fire-place of the stove so as to keep warm; cut off a piece and roll it into a pipe, then cut it into small pieces with a pair of shears, and let your assistant roll it into small balls under his hand on a sand-stone; marble is too smooth for this purpose. Many lads who are used to it can turn eight or ten under each hand at one time. When they are finished, put them into powdered sugar, wrap them in fancy papers, fringed at the ends, put a motto in each, and fasten them with small bands of gold

paper. Sometimes a cracker is folded up in each, which is made with two narrow strips of stiff paper a small piece of sand or glass paper is pasted on the end of each, and these are placed over each other with a little fulminating powder between, a piece of thin paper is bound round it, and pasted to keep them together; when these are pulled asunder, the two rough surfaces meeting cause the powder to explode, and out flies the ball of sugar with the motto. This innocent amusement often causes much mirth in a company.

Acid Drops and Sticks.—Boil clarified sugar to the crack, and pour it on an oiled marble stone: pound some tartaric or citric acid to a fine powder, and strew over it about a half or three quarters of an ounce of the former, according to its quality, and less of the latter, to seven pounds of sugar; turn the edges over into the middle, and mix the acid by folding it over, or by working it in a similar manner as dough is moulded, but do not pull it; put it in a tin rubbed over with oil or butter, and place it under the stove to keep warm; then cut off a small piece at a time, and roll it into a round pipe; cut them off in small pieces the size of drops, with shears, and let your assistant roll them round under his hand, and flatten them. Mix them with powdered sugar, sift them from it, and keep them in boxes or glasses.

When flavoured with lemon, they are called lemon-acid drops,—with otto of roses, rose-acid drops. The sticks are made in the same manner as the drops, without being cut into small pieces.

To extract the Acid from Candied Drops, &c.—All the articles which have acid mixed with them are extremely liable to grain, when they are useless for any purpose whatever, except to sell for broken pieces, as they cannot be boiled again unless the acid is extracted. The method of doing this is at present not generally known in the trade, and it is kept by many that are in

possession of it as a great secret. A sovereign is often paid for this recipe alone. However great the secret may be considered, it is only returning to the first principle in the manufacture of sugar. When the juice is expressed from the canes, it contains a considerable quantity of oxalic acid, which must be destroyed before it will granulate into sugar: for this purpose lime is employed, which has the desired effect; so will it also in this case, but chalk or whitening is most generally used. First dissolve your acid sugar in water; when this is thoroughly accomplished, mix in a sufficient quantity of either of these alkalies in powder to cause a strong effervescence; after it has subsided, pass it through a flannel bag, according to the directions for clarifying sugar. The filtered syrup will be fit to use for any purpose, and may be boiled again to the crack or caramel degrees as well as if no acid had ever been mixed with it. Let the pan it is dissolved in be capable of containing as much again as there is in it, or the effervescence will flow over.

Raspberry Rock or Sticks.—This may either be made from raw or refined sugar. Boil it to the crack, and colour it with cochineal; pour it on a stone rubbed over with a little oil or butter, cut off a small piece, and keep it warm to stripe or case the other part, when finished; to the remainder add a little tartaric acid (not so much as for drops), and some raspberry-paste, sufficient to flavour it. The residue of raspberries used for making vinegar, and preserved with an equal quantity of sugar, or even less, as for raspberry cakes, does very well for this purpose. Fold the edges over into the centre, and attach it to a hook fixed against the wall: pull it towards you, throwing it on the hook each time after having pulled it out; continue doing this until it gets rather white and shining, then make it into a compact long roll, and either stripe it with the

piece you cut off, or roll it out in a sheet with a rolling-pin, and wrap it round so as to form a sort of case; then pull it into long narrow sticks, and cut them the required length.

Clove, Ginger, or Peppermint Rock.—These are all made in the same way as raspberry, using the essential oil of each for flavour. For clove, the mixture, whilst boiling, is coloured with cochineal; ginger with saffron; but the peppermint must be kept perfectly white, except the stripes, which is done by cutting off as many pieces from the bulk as you have colours, which should be in powder; put a sufficiency in each piece to give the desired tint, and keep them warm. When the remaining portion of the sugar is pulled, lay them over the surface in narrow stripes, double the roll together, and the face each way will be alike. Pull them out into long sticks, and twist them; make them round by rolling them under the hand, or they may be cut into small pieces with a pair of shears or scissors, for pellets, pincushions, &c.

Brandy Balls, &c.—These are made from loaf sugar, boiled to the crack, and coloured either with cochineal or saffron, and finished in the same way as acidulated drops, without being flattened.

Nogat.—Two pounds of sweet almonds, one pound of sugar. Blanch the almonds, and cut them in slices, dry them at the mouth of a cool oven, and if slightly browned the better; powder the sugar, and put it into a stewpan, without water; place it on the fire to melt, stirring it with a spatula until it becomes a fine brown, then mix in the almonds, and let them be well covered with the sugar; pour it out on an oiled marble stone. It may be made into a thick or thin sheet, and cut with a knife into small pieces, such as dice, diamonds, &c. The surface may be strewed with currants, fillets of pistachios, or coarse sugar, and cut into different forms with tin cutters. It may also be formed into baskets, vases,

&c. Oil the interior of a mould, and spread the nogat over it, whilst warm, as thin and even as possible. To save the fingers from being burnt, it may be spread with a lemon. Detach it from the mould when warm, and let it remain until cold that it may retain its shape perfectly, then fasten the different parts together with caramel sugar. For baskets, a handle of spun sugar may be placed over it, or ornamented with it according to fancy. These may be filled with whipped or other creams when required to be served.

Almond Rock.—This is a similar production to nogat, and is made with raw sugar, which is boiled to the crack. Pour it on an oiled stone, and fill it with sweet almonds, either blanched or not; the almonds are mixed with the sugar by working them into it with the hands, in a similar manner as you would mix anything into a piece of dough. If they were stirred into the sugar in the pan it would grain, which is the reason why it is melted for nogat. Form the rock into a ball or roll, and make it into a sheet, about two inches thick, by rolling it with a rolling-pin. The top may be divided into diamonds or squares by means of a long knife or piece of iron: when it is nearly cold cut it into long narrow pieces with a strong knife and hammer.

Almond Hardbake.—Oil a square or round tin with low edges; split some almonds in half, put them in rows over the bottom, with the split side downward, until the surface is covered; boil some raw sugar to the crack, and pour it over them so as to cover the whole with a thin sheet of sugar. Cocoa nut, cut in thin slices, currant, and other similar candies, are made as the hardbake, except that the sugar is grained before it is poured over.

ON SUGAR-SPINNING.

To attain proficiency in this part, it requires much practice, and also a good taste for design, and to be expert in the boiling of sugar, taking particular care to

avoid its graining. Baskets, temples, vases, fountains, &c., are made by these means. It may almost be termed the climax of the art. The moulds for this purpose may be made either of copper or tin, so as to deliver well. Let them be slightly rubbed all over, on the part you intend to spin the sugar, with butter or oil.

Boil clarified syrup to the degree of caramel, taking care to keep the sides of the pan free from sugar. The moment it is at the crack, add a little acid to grease it (see Sugar Boiling). When it has attained the required degree, dip the bottom of the pan into cold water, take it out, and let it cool a little; then take a common table-spoon, dip it in the sugar, holding the mould in your left hand, and from the spoon run the sugar over the mould, either inside or out, with the threads which flow from it, which may be either fine or coarse, according to the state of the sugar; if they are required very coarse, pass the hand over them two or three times; for when it is hot it flows in finer strings than it will when cooler; form it on the mould into a sort of trellis-work; loosen it from the mould carefully, and let it remain until quite cold before it is taken off, that it may retain its shape. When the sugar gets too cold to flow from the spoon, place it by the side of the stove or fire to melt. Young beginners had better draw their designs for handles of baskets, &c., on a stone with a pencil before it is oiled, and then spin the sugar over them.

To make a Silver Web.—Boil clarified syrup to the crack, using the same precautions as before observed, giving it a few boils after the acid is added; dip the bottom of the pan in water and let the sugar cool a little; then take the handle of a spoon, or two forks tied together, dip it into the sugar, and form it either on the inside or outside of a mould, with very fine strings, by passing the hand quickly backwards and forwards, taking care that it does not fall in drops, which would spoil the appearance of your work. With this may be represented the hair of a helmet, the water of a fountain,

&c. Take a fork, or an iron skewer, and hold it in your left hand as high as you can, dip the spoon in the sugar, and with the right hand throw it over the skewer, when it will hang from it in very fine threads of considerable length.

To make a Gold Web.—Boil syrup to caramel height, colouring it with saffron, and form it as directed for the last. It can be folded up to form bands or rings, &c. Fasten it to the other decorations with caramel.

If any of the strings or threads of sugar should pass over those parts where they are not required, so as to spoil the other decorations in the making of baskets or other ornaments, it may be removed with a hot knife without breaking or injuring the piece.

Chantilly Baskets.—Prepare some ratafias, let them be rather small, and as near of a size as possible ; boil some sugar to the caramel degree, rub over the inside of a mould slightly with oil, dip the edge of the ratafias in sugar, and stick them together, the face of the ratafias being towards the mould, except the last two rows on the top, which should be reversed, remembering always to place their faces to meet the eye when the sugar is cold ; take it out, and join the bottom and top together with the same sugar ; make a handle of spun sugar, and place over it. Some sugar may be spun over the inside of the basket, to strengthen it, as directed for webs. Line the inside with pieces of Savoy or sponge cakes, and fill it with custard or whipped cream, or the slices of cake may be spread with raspberry jam. Half fill it with boiled custard, then put in a few Savoy or almond cakes, soaked in wine, and cover the top with whipped cream ; or it may be filled with fancy pastry, or meringues. All sorts of fancy cakes may be made into baskets as ratafias.

Grape, Orange, or Cherry Baskets.—These are made similar to the last ; the oranges are carefully peeled and divided into small pieces, taking off the

pith. Insert a small piece of stick or whisk in the end of each, dip them in caramel, and form them on the inside of an oiled mould. Cherries and grapes may be used either fresh, or preserved wet, and dried. Dip them in caramel, and form them as oranges. Each of these, or any other fruit, after being dipped in caramel, may be laid on an oiled marble slab separately, and served on plates in a pyramid, with fancy papers, flowers, &c. The baskets are finished as Chantilly with spun sugar.

Almond Baskets.—Blanch some fine Jordan almonds, and cut them into thin slices, and colour them in a small copper pan over the fire with prepared liquid colour (see Colours). Put them into the pan, and pour in colour sufficient to give the desired tint; rub them about in the pan with your hand until they are quite dry: form them as for a Chantilly basket, and spin sugar over them, or else form them on an oiled marble slab, and spin sugar over them on each side. Afterwards arrange them in a mould, or build them to any design, first having a pattern cut out in paper, and form them on the stone from it.

Rock Sugar.—Boil a quart of clarified syrup to the crack. Have some icing previously prepared as for cakes, or mix some fine powdered loaf sugar with the white of an egg to a thick consistency as for icing; take the sugar from the fire, and as soon as the boiling has gone down stir in a spoonful of this or the icing, which must be done very quickly, without stopping. Let it rise once and fall; the second time it rises, pour it out in a mould or paper case, and cover it with the pan to prevent its falling. Some persons pour it out the first time it rises, and immediately cover it as before. It may be made good both ways. If it is required coloured, add the colouring to the syrup whilst it is boiling, or with the icing, adding more sugar to give it the same stiffness as before.

Vases or Baskets, &c., in Rock Sugar.—Prepare

some plaster moulds, as for grained sugar ; soak them in water before you use them ; prepare some sugar as for the last, and fill the moulds. When finished they may be ornamented with gum-paste, piping, or gold-paper borders. Fill them with flowers, meringues, fancy pastry, caramel fruits, &c. They may also be made in copper or tin moulds, by first oiling them before they are filled.

SECTION VI.—CHOCOLATE.

Cacao Nuts.—The cocoa or cacao nut, of which chocolate is made, is the seed of the fruit of a tree common in South America and the West Indies. The seeds of the nuts, which are nearly of the shape of an almond, are found to the number of from thirty to forty in a pod. The pods are oval, resembling a cucumber in shape. The different sorts are distinguished by name, according to the places which produce them, thus,—the cacao of Cayenne, Caraccas, Berbice, and the islands of St. Magdalen and Domingo. These all differ in the size of their almonds or seeds, quality and taste. The most esteemed is the large Caraccas, the almond of which, though somewhat flat, resembles the shape of a large bean. The next are those of St. Magdalen and Berbice. The seeds of these are less flat than those of the Caraccas kind, and the skin is covered with a fine ash-coloured dust. The others are very crude and oily, and only fit to make the butter of cacao. The kernels, when fresh, are bitter, and are deprived of this by being buried in the ground for thirty or forty days. Good nuts should have a thin brittle skin, of a dark black colour ; and the kernel, when the skin is taken off, should appear full and shining, of a dusky colour, with a reddish shade. Choose the freshest, not worm-eaten, or mouldy on the inside, which it is subject to be.

Equal parts of the cacao of Caraccas, St. Magdalen, and Berbice, mixed together, make a chocolate of first-rate quality; and these proportions give to it that rich and oily taste which it ought to have. That made from the cacao of Caraccas only is too dry, and that from the islands too fat and crude.

Roasting.—Take a sufficient quantity of nuts to cover the bottom of an iron pot two or three inches deep, place them on the fire to roast, stirring them constantly with the spatula that the heat may be imparted to them equally. A coffee-roasting machine would answer for this purpose admirably, taking care not to torrefy them too much, as the oil of the nut suffers thereby, and it becomes a dark brown or black, grows bitter, and spoils the colour of the chocolate. Musty or mouldy nuts must be roasted more than the others, so as to deprive them of their bad taste and smell. It is only necessary to heat them until the skin will separate from the kernel on being pressed between the fingers. Remove them from the fire, and separate the skins. If you have a large quantity, this may be accomplished by putting them in a sieve which has the holes rather large, but not so much as to allow the nuts to pass through; then squeeze or press them in your hands, and the skins will pass through the meshes of the sieve; or, after being separated from the nuts, they may be got rid of by winnowing or fanning them in a similar manner to corn. When they are separated, put them again on the fire, as before directed, stirring them constantly until warmed through, without browning. You may know when they are heated enough by the outside appearing shiny; again winnow, to separate any burnt skin which may have escaped the first time.

The Making of Chocolate.—An iron pestle and mortar is requisite for this purpose, also a stone of the closest grain and texture which can be procured, and

a rolling-pin made of the same material, or of iron. The stone must be fixed in such a manner that it may be heated from below with a pot of burning charcoal, or something similar.

Warm the mortar and pestle by placing them on a stove, or by means of charcoal, until they are so hot that you can scarcely bear your hand against them. Wipe the mortar out clean, and put any convenient quantity of your prepared nuts in it, which you pound until they are reduced to an oily paste into which the pestle will sink by its own weight. If it is required sweet, add about one-half, or two-thirds of its weight of loaf sugar in powder; again pound it so as to mix it well together, then put it in a pan, and place it in the stove to keep warm. Take a portion of it and roll or grind it well on the slab with the roller (both being previously heated like the mortar) until it is reduced to a smooth impalpable paste, which will melt in the mouth like butter. When this is accomplished, put it in another pan, and keep it warm until the whole is similarly disposed of; then place it again on the stone, which must not be quite so warm as previously, work it over again, and divide it into pieces of two, four, eight, or sixteen ounces each, which you put in moulds. Give it a shake, and the chocolate will become flat. When cold it will easily turn out.

The moulds for chocolate may either be made of tin or copper, and of different devices, such as men, animals, fish, culinary or other utensils, &c.; also some square ones for half-pound cakes, having divisions on the bottom which are relieved. These cause the hollow impressions on the cakes.

The Bayonne or Spanish chocolate is in general the most esteemed. The reason of its superior quality is attributed by some to the hardness of the Pyreneean stone which they employ in making it, which does not absorb the oil from the nuts. They do not use any pestle and

mortar, but levigate their nuts on the stone, which is fixed on a slope; and in the second pounding or rolling the paste is pressed closely on the stone, so as to extract the oil, which runs into a pan containing the quantity of sugar intended to be used, and is placed underneath to receive it; the oil of the cacao and sugar are then well mixed together with a spatula, again mixed with the paste on the stone, and finished.

Vanilla Chocolate.—Ten pounds of prepared nuts, ten pounds of sugar, vanilla two ounces and a half, cinnamon one ounce, one draehm of mace, and two draehms of cloves, or the vanilla may be used solely.

Prepare your nuts according to the directions already given. Cut the vanilla in small bits, pound it fine with part of the sugar, and mix it with the paste; boil about one-half of the sugar to the blow before you mix it to the chocolate, otherwise it will eat hard. Proceed as before, and either put it in small moulds or divide it in tablets, which you wrap in tinfoil. This is in general termed eatable chocolate.

Cinnamon, Mace, or Clove Chocolate.—These are made in the same manner as the last, using about an ounce and a half or two ounces of any sort of spice, in powder, to that quantity, or add a sufficiency of any one of these essential oils to flavour.

Stomachic Chocolate.—Four ounces of chocolate prepared without sugar, vanilla one ounce, cinnamon in powder one ounce, ambergris forty-eight grains, sugar three ounces; warm your paste by pounding in the heated mortar, or on the stone, add your aromatics in powder to the sugar, and mix well with the paste; keep it close in tin boxes. About a dozen grains of this is to be put into the chocolate pot when it is made, which gives it an agreeable and delightful flavour, and renders it highly stomachic. It may also be used for flavouring the chocolate tablets.

Chocolate Harlequin Pistachios.—Warm some

sweet chocolate by pounding it in a hot mortar; when it is reduced to a malleable paste, take a little of it and wrap round a blanched pistachio nut, roll it in the hand to form it as neat as you can, throw it in some nonpareils of various colours; let it be covered all over. Dispose of the whole in the same manner; fold them in coloured or fancy papers, with mottoes; the ends should be cut like fringe. Almonds may be done the same way, using vanilla chocolate, if preferred.

Chocolate Drops, with Nonpareils.—Have some warm chocolate, as for pistachios; some add a little butter or oil to it to make it work more free; make it into balls about the size of a small marble, by rolling a little in the hand, or else put some of the paste on a flat piece of wood, on which you form, and take them off with a knife. Place them on sheets of white paper about an inch apart. When the sheet is covered, take it by the corners and lift it up and down, letting it touch the table each time, which will flatten them. Cover the surface entirely with white nonpareils, and shake off the surplus ones. When the drops are cold they can be taken off the paper easily. The bottom of the drops should be about as broad as a sixpence. Some of them may be left quite plain.

Good chocolate should be of a clear red brown. As the colour is paler, or darker so is the article the more or less good. The surface should be smooth and shining. If this gloss comes off by touching, it indicates an inferior quality, and is probably adulterated. When broken, it ought to be compact and close, and not appear crumbly. It should melt gently in the mouth when eaten, leaving no roughness or astringency, but rather a cooling sensation on the tongue. The latter is a certain sign of its being genuine.

SECTION VII.—LOZENGES.

THESE are composed of loaf-sugar in fine powder, and other substances, either liquid or in powder, which are mixed together and made into a paste with dissolved gum, rolled out into thin sheets, and formed with tin cutters into little cakes, either oval, square, or round, and dried.

One ounce of gum tragacanth, and half pint of water. Let it soak in a warm place twenty-four hours : put it in a coarse towel or cloth, and let two persons continue twisting it until the whole of the gum is squeezed through the interstices of the cloth. One ounce of this dissolved gum is sufficient for four or five pounds of sugar ; one ounce of dissolved gum Arabic to twelve ounces of sugar.

Either of these gums may be used separately, or in the proportion of one ounce of gum dragon to three ounces of Arabic mixed together. These are generally used for mediated lozenges ; but gum Arabic alone is considered to make the best peppermint.

Peppermint Lozenges, No. 1.—Take double-refined loaf-sugar, pound and sift it through a lawn sieve ; make a bay with the sugar on a marble slab, into which pour some dissolved gum, and mix it into a paste as you would dough, flavouring the mass with oil of peppermint. That made at Mitcham, in Surrey, is the best. One ounce of this is sufficient for forty pounds of lozenges. Some persons prefer mixing their gum and sugar together at first in a mortar ; but as it is indifferent which way is pursued, that may be followed which is most convenient. Roll out the paste on a marble slab until it is about the eighth of an inch in thickness, using starch powder to dust it with, to prevent its sticking to the slab and pin. Before cutting

them out, strew or dust over the surface with powder mixed with lawned sugar, and rub it over with the heel of your hand, which gives it a smooth face. This operation is termed "facing up." Brush this off, and again dust the surface with starch powder, cut them out, and place in wooden trays. Put them in the stove to dry. *Note*.—All lozenges are finished in the same manner.

Peppermint Lozenges, No. 2.—These are made as No. 1, adding a little starch-powder or prepared plaster as for gum paste to the paste, instead of using all sugar.

Peppermint Lozenges, Nos. 3 and 4.—Proceed in the same manner as for No. 2, using for each more starch powder in proportion. Use smaller cutters, and let the paste be rolled thicker.

Transparent Mint Lozenges, No. 5.—These are made from loaf-sugar in coarse powder, the finest having been taken out by sifting it through a lawn sieve. Mix it into a paste with dissolved gum Arabic and a little lemon juice. Flavour with oil of peppermint. Finish as for No. 1.

Superfine Transparent Mint Lozenges.—The sugar for these must be in coarser grains. Pass the sugar through a coarse hair sieve. Separate the finest by sifting it through a fine hair or lawn sieve. Mix and flavour as the others.

Note.—The coarser the grains of sugar, the more transparent the lozenges. The finest particles of sugar being mixed with it, destroy their transparency. The solution of gum should be thicker in proportion as the sugar is coarse.

Rose Lozenges.—Make your paste as No. 1, using the essential oil or otto of roses to flavour them; or the gum may be dissolved in rose water, and a little essential oil may be added to give additional flavour, if required. Colour the paste with carmine.

Cinnamon Lozenges.—Gum tragacanth, dissolved, two ounces, lawned sugar eight pounds, cinnamon in powder one ounce, essential oil ten drops.

Mix into a paste, and colour with bole ammoniac. A stomachic.

Clove Lozenges.—Sugar eight pounds, cloves three ounces, gum tragacanth two ounces

Each lozenge should contain two grains of cloves. A restorative and stomachic.

Lavender Lozenges.—Make as rose lozenges, using the oil of lavender instead of rose. The English oil made from the narrow-leaved lavender is much superior to the foreign.

Ginger Lozenges.—Eight pounds of sugar and eight ounces of the best ground ginger. Mix into a paste with dissolved gum. Essence may be used instead of the powder, colouring it with saffron. A stimulant and stomachic.

Nutmeg Lozenges.—Sugar eight pounds, oil of nutmegs one ounce, dissolved gum sufficient to mix into a paste. A stimulant and stomachic.

Rhubarb Lozenges.—Sugar four pounds, best Turkey rhubarb, in powder, ten ounces.

Sulphur Lozenges.—Four pounds of sugar, eight ounces of sublimed sulphur, gum sufficient to make a paste. For asthma and the piles.

Tolu Lozenges.—Sugar four pounds, balsam of tolu three drachms, or the tincture of the balsam one fluid ounce, cream of tartar six ounces, or tartaric acid one drachm, dissolved gum sufficient to make a paste. These may also be flavoured by adding a quarter of an ounce of vanilla, and sixty drops of the essence of amber. The articles must be reduced to a fine powder with the sugar. A pectoral and balsamic.

Ipecacuanha Lozenges.—Sugar four pounds, ipecacuanha one ounce, apothecaries' weight, dissolved

gum sufficient to make a paste. Make 960 lozenges, each containing half a grain of ipecacuanha. An expectorant and stomachic, used in coughs.

Saffron Lozenges.—Saffron dried and powdered, four ounces, sugar four pounds, dissolved gum sufficient. An anodyne, pectoral, emmenagogue.

Yellow Pectoral Lozenges.—Sugar one pound, Florence orris-root powder twelve drachms, liquorice-root six drachms, almonds one ounce, saffron in powder four scruples, dissolved gum sufficient to make a paste. Make a decoction of the liquorice to moisten the gum with.

Lozenges for the Heartburn.—Prepared chalk four ounces, crabs' eyes prepared two ounces, bole ammoniac one ounce, nutmeg one scruple, or cinnamon half an ounce. Make into a paste with dissolved gum Arabic.

Steel Lozenges.—Pure iron filings or rust of iron one pound, cinnamon in powder four ounces, fine sugar seven pounds, dissolved gum a sufficient quantity to make a paste. A stomachic and tonic.

Magnesia Lozenges.—Calcined magnesia eight ounces, sugar four ounces, ginger in powder two scruples, dissolved gum Arabic sufficient to form a paste.

Magnesia two ounces, sugar eight ounces, sufficient gum Arabic to make a paste, dissolved in orange-flower water.

Nitre Lozenges.—Sugar four pounds, sal-nitre one pound, dissolved gum tragacanth sufficient to make a paste. A diuretic internally; held in the mouth it removes incipient sore throats.

Marshmallow Lozenges.—Marshmallow roots in powder one pound, or slice the root and make a strong decoction, in which you dissolve the gum, fine sugar four pounds. Mix into a paste. If six drops of laudanum be added, with two ounces of liquorice, the pectoral quality of these lozenges will be improved. Good for obstinate coughs.

Vanilla Lozenges.—Sugar four pounds, vanilla in powder six ounces, or sufficient to give a strong flavour. Make into a paste with dissolved gum.

Catechu Lozenges.—Sugar four pounds, catechu twelve ounces. Make into a paste with dissolved gum.

Catechu à l'Ambergris.—To the paste for catechu lozenges add sixteen grains of ambergris.

Catechu with Musk.—The same as for catechu, adding sixteen grains of musk.

Catechu with Orange-flowers.—As before, adding twelve drops of essence of neroli.

Catechu with Violets.—As before, adding Florence orris-root in powder, three drachms. These are all used to fasten the teeth and disguise an offensive breath.

Ching's Yellow Worm Lozenges.—Fine sugar twenty-eight pounds, calomel washed in spirits of wine one pound, saffron four drachms, dissolved gum tragacanth sufficient to make a paste. Make a decoction of the saffron in one pint of water, strain, and mix with it. Each lozenge should contain one grain of mercury.

Ching's Brown Worm Lozenges.—Calomel, washed in spirits of wine (termed *white panacea of mercury*), seven ounces, resin of jalap three pounds eight ounces, fine sugar nine pounds, dissolved gum sufficient quantity to make a paste. Each lozenge should contain half a grain of mercury.

Panacea one ounce, resin of jalap two ounces, sugar two pounds. Dissolve a sufficient quantity of gum in rose-water to make a paste. Make 2520 lozenges, weighing eight grains each, and containing a quarter of a grain of calomel and half a grain of jalap.

These lozenges should be kept very dry after they are finished, as the damp, acting on the sugar and mercury, generates an acid in them.

Note.—In mixing these, as well as all other medicated lozenges, the different powders should be well mixed with the sugar, in order that each lozenge may have

its due portion. If this is not attended to, the perfect distribution of the component parts cannot be depended on, and one lozenge may contain double or treble the quantity of medicated matter it ought to have, whilst others contain comparatively none; therefore those which have the greatest portion may often prove injurious by acting contrary to what was intended.

Bath Pipe.—Eight pounds of sugar, twelve ounces of liquorice. Warm the liquorice and cut it in thin slices, dissolve it in one quart of boiling water, stir it well, to assist the solution; let it settle, when dissolved, to allow any impurities or bits of copper which are often found in it to fall down; pour it off free from the sediment; dissolve the gum in the clear part, and mix into a paste as for lozenges. Roll out a piece with your hand in a round form; finish rolling it with a long flat piece of wood, until it is about the size of the largest end of the stem of a tobacco-pipe. Dry them in the stove as lozenges. These may be also flavoured with anise-seed by adding a few drops of the oil, or with catechu or violets by adding the powders of orris-root or catechu.

Peppermint or other Pipes.—Any of the pastes for lozenges may be formed into pipes by rolling it out as directed for Bath pipes. They are occasionally striped with blue, green, and yellow, by making strips with liquid colour on the paste and twisting before you roll it out with the board.

Brilliant.—Take either of the pastes for peppermint lozenges from No. 1 to 4, and cut it into small fancy devices, such as hearts, diamonds, spades, triangles, squares, &c.

Refined Liquorice.—Four pounds of the best Spanish juice, and two pounds of gum Arabic. Dissolve the liquorice in warm water, as for Bath pipe. Strain, and dissolve the gum in the solution of liquo-

rice. Place it over a gentle fire, in a broad pan, and let it boil gradually, stirring it continually (or it will burn) until it is reduced to a paste. Roll it into pipes or cylinders of convenient lengths, and polish by putting them in a box and rolling them together, or by rubbing them with the hand, or a cloth. This is often adulterated by using glue instead of gum, and by dipping the pipes in a thin solution, which gives them a beautiful gloss, when dry. In establishments where this is manufactured on a large scale, the liquorice is dissolved in a large bain-marie, and stirred with spatulas which are worked by a steam-engine.

SECTION VIII.—PASTILE DROPS.

CHOOSE the best treble-refined sugar with a good grain, pound it, and pass it through a coarse hair sieve; sift again in a lawn sieve to take out the finest part, as the sugar, when it is too fine, makes the drops heavy and compact, and destroys their brilliancy and shining appearance.

Put some of the coarse grains of sugar into a small drop pan (these are made with a lip on the right side, so that when it is held in the left hand the drops may be detached from it with the right), moisten it with any aromatic spirit you intend to use, and a sufficient quantity of water to make it of a consistence just to drop off the spoon or spatula without sticking to it. Colour with prepared cochineal, or any other colour, ground fine and moistened with a little water. Let the tint which you give be as light and delicate as possible. Place the pan on the stove fire, on a ring of the same size. Stir it occasionally until it makes a noise, when it is near boiling, *but do not let it boil*; then take it from the fire, and stir it well with the spatula until it is of the consistence that when dropped it will not

spread too much, but retain a round form on the surface. If it should be too thin, add a little of the coarse sugar, which should be reserved for the purpose, and make it of the thickness required. Have some very smooth and even plates, made either of tin or copper; let them be quite clean, and drop them on these, separating the sugar from the lip of the pan with a piece of straight wire, as regularly as possible. About two hours afterwards they may be taken off with a thin knife. If you have not the convenience of tin or copper plates, they may be dropped on smooth cartridge paper. Wet the back of the paper when you want to take them off. Cover the bottom of a sieve with paper, lay them on it, and put them in the stove for a few hours. If they remain too long, it will deprive them of their fragrancy.

Chocolate Drops.—One pound of sugar, one ounce of chocolate. Scrape the chocolate to a powder, and mix it with the sugar in coarse grains, moisten it with clean water, and proceed according to the instructions already given, but do not mix more than can be dropped out whilst warm at one time. If any remains in the pot, it will grease the next which you mix, and will not attain the consistence required.

Coffee Drops.—One ounce of coffee, one pound of sugar. Make a strong and clear infusion of coffee, as directed for coffee ice, and use it to moisten the sugar. Make the drops as above.

Cinnamon Drops.—One ounce of cinnamon, one pound of sugar. Pulverize the cinnamon, and sift it through a lawn sieve. Mix it with the sugar, and add two or three drops of the essential oil if the flavour is not strong enough. Moisten it with water and proceed as before. The flavour may be given with the essential oil only, colouring them with bole ammoniac.

Clove Drops.—Make as cinnamon.

Vanilla Drops.—Make as cinnamon, using a little

sugar to pound the vanilla. Use sufficient to give a good flavour; or it may be moistened with the essence of vanilla; but this greases it as chocolate.

Violet Drops.—One pound of sugar, one ounce of orris-powder. Moisten with water, and colour violet.

Catechu Drops.—One pound of sugar, three ounces of catechu. Make as violet. These may also have the addition of a little musk or ambergris—about fifteen grains.

Ginger Drops.—Mix a sufficient quantity of the best powdered ginger to give it the desired taste, or flavour it with the essence of ginger, and colour it with saffron. Moisten with water, and make as others.

Lemon Drops.—Rub off the yellow rind of some lemons on a piece of rough sugar, scrape it off, and mix it with the coarse sugar. Use sufficient to give a good flavour, and colour with saffron a light yellow; moisten with water, as others.

Rose Drops.—Moisten the sugar with rose water, and colour it with cochineal.

Peppermint Drops.—Moisten the sugar with peppermint water, or flavour it with the essence of peppermint, and moisten it with water.

Orange-flower Drops.—Use orange-flower water to moisten the sugar, or flavour it with the essence of neroli and moisten with water.

Orgeat Drops.—Make milk of almonds, as directed under the head of Orgeat Syrup, using a little orange-flower water; moisten the sugar with it.

Raspberry Drops.—Press out the juice of some ripe raspberries through a piece of flannel or cloth, and moisten the sugar with it. All fruit drops are made in the same way,—that is, with the expressed juice,—except orange. When you first rub off the rind of the fruit on sugar, squeeze the pulp of the fruit, and pass through a hair sieve. Scrape off the sugar on

which the rind was rubbed, and mix it with a sufficient quantity of the pulp to give the desired flavour to the coarse grains, and moisten it with water. The whole of these grease the sugar, and require the same precautions as chocolate drops.

SECTION IX.—COMFITS.

A COPPER comfit-pan is requisite for this purpose. A bar, having chains at each end, with a hook and swivel in the centre, is attached to it, by which it is suspended from the ceiling or a beam, so as to hang about as high as the breast over a stove or charcoal fire, that the pan may be kept at a moderate heat and at such a distance as to allow it to be swung backwards and forwards without touching the fire or stove. A preserving-pan, containing clarified syrup, must be placed by the side of the stove, or over another fire, that it may be kept hot, but not boiling: also a ladle for throwing the syrup into the pan, and a pearling cot. This last somewhat resembles a funnel, without the pipe or tube, and having a small hole in the centre with a pointed piece of stiek or spigot fitted into it, which, being drawn out a little, allows the syrup when placed in it to run out in a small stream. A piece of string tied several times across the centre of the top of the cot, and twisted with the spigot, allows it to be drawn out and regulated at pleasure.

Scotch Caraway Comfits.—Sift two pounds of seeds in a hair sieve to free them from dust, put them into the comfit-pan, and rub them well about the bottom with your hand until they are quite warm; have some clarified loaf sugar in syrup and boiled to the small thread; give them a charge by pouring over them about two table-spoonfuls to commence with; rub and shake them well about the pan, that they may take

the sugar equally, until they are quite dry. Be careful in not making them too wet in the first charges by using too much syrup, or they will lie of a lump and get doubled, and you will have difficulty in parting them. It will prevent their sticking together if the hand is passed through them between every swing of the pan, and also add to their smoothness. Do not let the heat under the pan be too strong, or it will spoil their whiteness. Give them four or five charges, increasing the quantity of syrup a little each time, and let each charge be well dried before another is given, dusting them at the last charge with flour. Sift them in a hair sieve, and clean the pan. Put them in again, and give them four or five charges more, with a dust of flour at the last; then sift them and clean the pan. Proceed in this manner until they are one-third of the required size. Put them into the stove or sun to dry until the next day, then clarify and boil some sugar to the large thread, keep it warm as before, divide the comfits, and put part of them in the pan, so as not to have too many in at one time, for as they increase in size you must divide them into convenient portions, so that you may be enabled to work them properly without encumbering the pan. Give them four or five charges of syrup, proceeding in the same manner as before, until they are two-thirds or more of the required size, and stove them until the next day. Continue in this manner with each portion alternately, until they are all done. On the third day, boil the syrup to the small pearl, and give eight or ten charges as before, without using flour, so as to finish them, lessening the quantity of syrup each time. Swing the pan gently, and dry each charge well. Put them in the stove for half an hour or an hour after each charge, and proceed alternately with each portion until they are finished, when they should be about the size of peas. Put them in the stove for a day, then smooth them with the whitest loaf

sugar in syrup, boiled to the small thread; add two or three table-spoonfuls of dissolved gum Arabie with it to give them a gloss. Give three or four charges with a very gentle heat, the syrup being cold and the pan scarcely warm. Work and dry each charge well before another is added: when finished, dry them in a moderate heat. It is the best way, if possible, to dry comfits in the sun, as it bleaches them. If the stove is at a greater heat than the sun in a moderately warm day, which is from 70 to 80 degree of Fahrenheit, it will spoil their whiteness.

Bath Caraways.—These are made in the same way, but only half the size.

Gingerbread Caraways.—Sift the seeds, and warm them in the pan, as for Scotch caraways. Have some gum-Arabic dissolved, throw in a ladleful, and rub them well about the pan with the hand until dry, dusting them with flour. Give them three or four coatings in this manner, and then a charge of sugar, until they are about one-half the required size. Dry them for a day, give them two or three coatings of gum and flour, finish them by giving three or four charges of sugar, and dry them. These are made about the size of Bath caraways. Colour parts of them different colours, leaving the greatest portion white.

Cinnamon Comfits.—Cinnamon is the bark of a tree, of which there are two sorts. The inferior quality is that usually sold for cinnamon, and is otherwise known as cassia, or *cassia lignea*. This breaks short, and has a slimy mucilaginous taste, is thicker, and of a darker colour than the cinnamon, which is the inner bark. This breaks shivery, and has a warm aromatic taste, and is of a reddish colour.

Take one pound of cinnamon bark, and steep it in water for a few hours to soften it; cut it into small pieces about half an inch long, and the size of a large needle. Dry it in the stove. Put your pieces, when dry, into

the comfit-pan, and pour on them a little syrup, as for Scotch caraways, proceeding in the same way until they are one-third the required size. You must not use your hand for these as you would for caraways, as they are liable to break in two. Dry them in the stove, then suspend the pearling pot or cot from the bar of the pan or ceiling, so as to hang over the centre of the pan; boil some clarified loaf sugar to the large pearl, and fill the cot; put some of the prepared comfits in the pan, but not too many at a time, as it is difficult to get them to pearl alike. Keep the syrup at the boiling point: open the spigot of the cot so as to allow it to run in a very small stream, or more like a continued dropping; swing the pan backwards and forwards gently, and keep a stronger fire under the pan than otherwise. Be careful that the syrup does not run too fast, and wet them too much, but so that it dries as soon as dropped, which causes them to appear rough. If one cot full of sugar is not enough, put in more until they are the required size. When one lot is finished put them in sieves to dry, and proceed with another; but do not let them lie in the pan after you have finished shaking them. They will be whiter and better if partly pearled one day and finished the next. Use the best clarified sugar to finish them.

Coriander Comfits.—Proceed with these as for Scotch caraways, working them up to about the same size. The next day pearl them to a good size, as for cinnamon.

Celery Comfits.—Put one pound of celery seed into the pan, and proceed as for Scotch caraway comfits, working them up to the size of a large pin's head. Dry and pearl them as cinnamon.

Caraway Comfits, pearled.—When the comfits are about the size of Bath caraways, dry and pearl them as cinnamon.

Almond Comfits.—Sift some Valencia almonds in a

cane or wicker sieve, pick out any pieces of shell which may be amongst them, and also any of the almonds which are either very small or large, using those which are as near of a size as possible; take about four pounds, put them into the comfit pan, and proceed in precisely the same way as for Scotch caraways; or they may first have a coating of dissolved gum Arabie; rub them well about the pan with the hand, and give them a dust of flour; then pour on a little syrup at the small thread, work and dry them well, then give them three or four more charges, and a charge of gum with a dust of flour. Proceed in this way until they are one-third the required size, then dry them for a day, and proceed and finish as for caraway comfits. For the cheaper or more common comfits, more gum and flour are used in making them.

Cardamom Comfits.—The seeds should be kept in their husks until they are required to be used, as they lose much of their flavour and virtues when deprived of them. They are often mixed with grains of paradise, but these have not the aromatic taste of the cardamom, and are more hot and spicy. Break the husks of the cardamoms by rolling them with a pin; separate the skins from the seeds, put two pounds into the comfit-pan, and proceed as for Scotch caraways. Make them a good size, and quite smooth.

Barberry Comfits.—Pick the barberries from the stalks, and dry them in a hot stove on sieves; when dry, put about two pounds into the comfit pan, and proceed as for almond comfits, giving them first a charge of gum and flour, and finish as others. Make them of a good size and quite smooth; finish with very white loaf sugar in syrup.

Cherry Comfits.—These are made from preserved cherries, dried. Roll them in your hand to make them quite round, dust them with powdered loaf sugar, and dry them again; then proceed as for barberry

comfits. Any other preserved fruits may be made into comfits after the same manner.

Comfits flavoured with Liqueurs.—Blanch some bitter almonds, or the kernels of apricots or peaches; let them soak in hot water for an hour, then drain them, and put them into any sort of liqueur or spirit you may desire. Lower the strength of the spirit with water, that the kernels may imbibe it the better, cork the jug or bottle close, and let them infuse in it until the spirit has fully penetrated them, which will be about fourteen or fifteen days; then take them out, drain and dry them in a moderate heat; when dry, proceed as for almond comfits.

Orange Comfits.—Take some preserved orange-peel, and cut it into small thin strips; dry them in the stove, and make as cinnamon comfits.

Lemon Peel or Angelica may be made into comfits after the same manner. Let the strips of peel be about the size of the pieces of cinnamon, and thoroughly dried before working them in the pan.

Nonpareils.—Pound some loaf sugar, and sift it through a fine wire sieve; sift what has passed through again in a lawn sieve, to take out the finest particles, so that you have only the fine grain of sugar left without dust. Put about two pounds of this into the comfit-pan, and proceed as for Scotch caraways, working them well with the hand until they are about the size of pins' heads.

To colour Nonpareils or Comfits.—Put some of your comfits or nonpareils into the comfit-pan, shake or rub them about until warm, then add a sufficient quantity of prepared liquid colour (see Colours) to give the desired tint; be careful not to make them too wet, nor of too dark a colour, but rather light than otherwise; shake or rub them well about, that they may be coloured equally; dry them a little over the fire, then put them in sieves, and finish drying them

in the stove. Clean the pan for every separate colour.

COMFITS IN GUM PASTE.

Raspberry Comfits.—Prepare some gum paste made with sugar, or the scrapings of the comfit-pan pounded and sifted through a lawn sieve. It may be flavoured with raspberry jam, by mixing some with the paste. Colour it with prepared cochineal; mould it into the form of raspberries, and dry them in the stove; when they are perfectly dry and hard, pearl them as for cinnamon comfits, working them until the size of natural raspberries. Colour them when dry with cochineal, as comfits.

Ginger Comfits.—Flavour gum paste with powdered ginger, make it into small balls about the size of coriander seeds, or peas; dry, and proceed as for Scotch caraways. Colour them yellow when finished.

Clove Comfits.—Flavour sugar gum paste with the oil of cloves, and mould it in the form of cloves. Dry and finish as others.

Any flavour may be given to this sort of comfits, and they are moulded to form the article of which it bears the name, or cut into any device with small cutters. Dried, and finished as other comfits.

To colour Loaf-Sugar Dust.—Pound some sugar, and sift it through a fine hair sieve; sift this again through a lawn sieve, to take out the finer portions. Put the coarse grains into a preserving pan, and warm them over the stove fire, stirring continually with the hand; pour in some liquid colour to give the desired tint, and continue to work them about the pan until they are dry.

SECTION X.—JELLIES.

THESE are the juices of mucilaginous fruits, rendered clear by filtering them through a flannel bag, and adding an equal weight of sugar; boil to the consistence of a

jelly. If the boiling is continued too long they will become ropy, or more like treacle.

Apple Jelly.—Take either russet pippins, or any good baking apples; pare and core them, cut them in slices into a preserving pan containing sufficient water to cover them; then put them on the fire, and boil them until they are reduced to a mash. Put it into a hair sieve, that the water may drain off, which you receive in a basin or pan; then filter it through a flannel bag. To every pint of filtered juice add one pound of loaf sugar, clarify, and boil it to the ball. Mix the juice with it, and boil until it jellies; stir it with a spatula or wooden spoon, from the bottom, to prevent burning. When it is boiled enough, if you try it with your finger and thumb, as directed in sugar-boiling, a string may be drawn similar to the small pearl: it may also be known by its adhering to the spatula or spoon, or a little may be dropped on a cold plate; if it soon sets, it is done. Take off the scum which rises on the top. This is in general used for pouring over preserved wet fruits. This jelly may be coloured red with prepared cochineal.

Quince Jelly.—This is made as apple jelly. The seed of the quince is very mucilaginous. An ounce of bruised seed will make three pints of water as thick as the white of an egg.

Red Currant Jelly.—Take three quarts of fine ripe red currants, and four of white; put them into a jar, tie paper over the top, and put them into a cool oven for three or four hours, or else into a pan of boiling water; when they are done, pour them into a jelly bag; what runs out at first put back again; do this until it runs fine and clear. To each pint of filtered juice add one pound of loaf sugar clarified and boiled to the ball: mix the filtered juice with it, and reduce it to a jelly, stirring it well from the bottom with a spatula. What scum forms on the top take off with a skimmer, put it into pots or glasses, and when cold

cut some pieces of paper to the size of the top, steep in brandy, and put over each; then wet some pieces of bladder, put one over the top of each pot or glass, and tie it down.

White and Black Currant Jelly.—These are made in the same way, using part red currants with the black ones.

Violet-coloured Currant Jelly.—This is made as red currant jelly, mixing two pounds of black currants with ten of red.

Cherry Jelly.—Pick off the stalks and take out the stones of some fine ripe Kentish cherries, and to every four pounds of cherries add one pound of red currants; proceed as for currant jelly.

Barberry Jelly.—Take some very ripe barberries, pick them from their stalks, and weigh them. To every pound of fruit take three-quarters of a pound of loaf sugar, add sufficient water to make it into a syrup, put in the barberries, and boil them until the syrup comes to the pearl, taking off any scum which may rise. Then throw them into a fine hair or lawn sieve, and press the berries with a spoon to extract as much juice as possible from them. Receive the syrup and juice in a pan, put it again on the fire, and finish as apple jelly.

Any of these jellies may be made without fire on the same principle as clear cakes. Get the fruit ripe and fresh gathered, obtain the juice by expression, and filter it through a flannel bag; add an equal weight of sugar to that of filtered juice, stir well together until the sugar is dissolved, and place it in a warm place or the sun for a few days, when it will be a fine jelly. Those made in this manner retain the natural flavour of the fruit.

Raspberry Jelly.—Take three pottles of ripe raspberries and one of ripe currants, press out the juice and filter it; to a pint of juice add one pound of loaf sugar, and finish as other jellies.

Gooseberry Jelly.—Make as currant jelly ; or it may be made of green gooseberries, as apple jelly.

SECT. XI.—MARMALADES OR JAMS.

MARMALADE is generally a term applied to preserves made of oranges, lemons, apples, pears, quinces, or plums ; but I know no difference between marmalades and jams, as they are each of them the pulp of fruits reduced to a consistence, with sugar, by being boiled. If it contains too much sugar it will crystallize, or what is termed candy. The top and sides of the vessel which contains it will be covered with a thin coating of sugar ; and if there is not enough in it, or it is not sufficiently boiled, it will soon ferment. Keep them in a cool dry place.

Apple Marmalade.—Pare and core some good apples ; cut them in pieces into a preserving pan, with sufficient water to cover them ; put them on the fire, and boil until they are reduced to a mash, then pass the whole through a colander ; to each pound of pulp add twelve ounces of sugar ; put it on the fire, and boil it until it will jelly ; try it as directed for apple jelly ; put it into pots when cold, and cover the top with paper dipped in brandy, or pour over it melted mutton suet, and tie it over with paper or bladder.

Quince Marmalade.—Make as apple, colouring it with prepared cochineal, if required red ; let the fruit be quite ripe.

Green Apricot Marmalade or Jam.—Prepare the fruit by blanching and greening (as for green apricots, wet). When they are green, pulp them by rubbing them through a coarse hair sieve or colander ; for each pound of pulp clarify and boil to the blow one pound of loaf sugar ; mix it with the pulp and boil it until

it will jelly ; take off any scum which may arise with a skimmer. This jam is of an excellent green colour, and is very useful for ornamenting and piping almond bread, &c.

Cherry Marmalade or Jam.—Take out the stones and stalks from some fine cherries, and pulp them through a cane sieve ; to every three pounds of pulp add half a pint of currant juice, and three-quarters of a pound of sugar to each pound of fruit ; mix together, and boil until it will jelly. Put it into pots or glasses.

Currants, raspberries, plums, and gooseberries, are all made in the same manner. Pulp the fruit through a cane sieve, the meshes of which are not large enough to admit a currant to pass through whole. To each pound of pulp add one pound of loaf sugar, broken small, and boil to the consistence of a jelly.

Seville Orange Marmalade.—Take the same weight of sugar as of oranges ; cut the oranges in half, squeeze out the juice, and strain it ; boil the peels in water until they are quite tender and a strong straw may be passed through them ; then drain them from the water, scoop out the pulp, leaving the rind rather thin ; cut it into thin fillets ; boil the juice of the oranges with the sugar, and skim it when it is nearly done ; add the peels, and finish as others. Part of the peels may be pounded and mixed with the marmalade, instead of the whole being cut in fillets ; but then it is not so clear, and is a practice which is now almost abandoned, except by a few private persons. Lemon marmalade is made in the same way.

SECT. XII.—OF FRUIT AND OTHER PASTES.

Fruit Pastes and Cakes.—These are the pulp of fruits, reduced by heat to a kind of marmalade, with

the addition of from half a pound to a pound, and in some cases double the weight of sugar to each pound of pulp, which is evaporated to the required consistence. They can be formed into rings, knots, &c., and either crystallized or candied.

Apple or Pippin Paste.—Take any quantity of good dressing apples, pare, core, and put them into a preserving pan with a little water, or just sufficient to cover them. Boil until they are reduced to a marmalade, stirring them to prevent burning. To every pound of reduced pulp add half or three-quarters of a pound of loaf sugar, clarified and boiled to the blow; pass the pulp through a hair sieve before you mix the sugar with it; put it on the fire, and let it boil for three or four minutes, keeping it constantly stirred from the bottom, when it will be sufficiently evaporated. If it be required coloured, add liquid colour sufficient to give the desired tint when you mix the sugar. Spread the paste on small tin or pewter sheets (these should be about a foot wide, by a foot and a-half long, and perfectly level) with a thin knife, about the eighth of an inch in thickness; put them in the stove for a day; take them out, and cut the paste into long narrow strips, about a quarter of an inch in width; if the paste is dry enough, the strips can be easily pulled off; form them into rings or knots, or cut into diamonds to form leaves, or any other device your fancy may suggest. Put them in boxes with a sheet of paper between each layer. This paste is occasionally flavoured with lemon, and is principally used for ornamenting the tops of twelfth cakes.

Apple Cheese.—Pare, quarter, and core your apples, as for paste; put them into a jar, and cover the top with the parings; tie paper over the top, and bake them in a moderate oven until they are quite done; take off the parings, and pass the apples through a hair sieve into a preserving pan. To each,

pound of pulp add half a pound of loaf sugar clarified and boiled to the blow ; place it over a slow fire, stirring it constantly from the bottom until reduced to a stiff paste, which will not stick to the hand ; put it into small moulds, hoops, or glasses. Dry in a moderately warm stove for a few days ; take them out of the moulds, turn them, and place them again in the stove to finish drying. Keep in boxes as paste-knots, or cover the glasses with brandy papers.

Apricot Paste.—Take ripe apricots, put them in a preserving pan with as much water as will cover them ; let them simmer on the fire for two or three minutes, or scald until they are tender ; drain the water from them, and pass the pulp through a hair sieve ; to each pound of pulp take three-quarters of a pound of sugar, which you clarify and boil to the blow ; put the apricots on the fire, and let them simmer, stirring them constantly until reduced to a thick marmalade ; then add the sugar ; mix it well with the paste, and let it boil a minute or two longer ; take it from the fire, and put into moulds, pots, or crimped paper cases ; or it may be spread on small plates, as for apple paste, and formed into rings or knots. Place in the stove until dry. If put in paper cases, the paper must be wetted to get out the paste. Take it out of the moulds, turn it, and put it again into the stove to finish drying.

Green Apricot Paste.—Take apricots before they are ripe, scald as the last, and green them. (See Greening Fruit.) Pass the pulp through a sieve, and reduce it ; to each pound of reduced pulp add one pound of loaf sugar clarified and boiled to the blow. Finish as ripe apricot paste.

Currant Paste.—Put any quantity of ripe currants, either red or white, or a part of each mixed, into a hair sieve, press out their juice into a preserving pan. put it on the fire and keep it constantly stirred until

evaporated to a thick consistence. To each pound of reduced pulp add three-quarters of a pound or a pound of loaf sugar clarified and boiled to the blow. Let it boil a minute or two, and finish as others.

Black Currant Paste is made the same as the last. These currants, not being so juicy as the others, may be put into a jar, tied over, and baked in a moderate oven, or put into a kettle of boiling water for a few hours, to extract the juice from them.

Raspberry Paste.—As currant paste.

Cherry Paste.—Take ripe cherries, deprive them of their stalks and stones, put them in a preserving pan, and boil them a little; then pass them through a hair sieve, reduce the pulp, and weigh it. To each pound add a pound of loaf sugar; add it to the paste, and finish as apricot.

Peach Paste.—Choose some very fine and ripe peaches, take off the skin, and cut them in small pieces into a preserving pan; put them on the fire, and reduce to a thick consistence, stirring it continually. For each pound of reduced pulp take half or three-quarters of a pound of sugar; clarify and boil it to the blow; add it to the pulp; put it again on the fire, and let it boil a few minutes. Finish as other pastes.

Plum Paste.—Plums of any kind are preserved in the same manner, whether greengages, magnum bonums, Orleans, damsons, &c. Take out their stones, and boil the fruit in a little water, as for apricot paste; pass them through a sieve, and for each pound of reduced pulp take a pound of sugar; clarify and boil it to the blow; mix it with the paste, and evaporate to the required consistence.

Damson Cheese.—Pick the stalks from the damsons, put them in a jar, tie it over, and bake in a cool oven; when done, pass them through a sieve into a preserving pan; put it on the fire to reduce. For

each pound of pulp take half a pound of sugar, boiled to the blow; mix with the paste, and finish as for apple cheese. This, as well as all the pastes, may be evaporated to the required consistence by means of a water bath, which is done by placing the pan in which it is contained in another with water, which is kept boiling; this prevents the possibility of its being burnt, but it occupies more time. The kernels of the fruit may be blanched and added to it just before it is taken from the fire. Put it into moulds or hoops; dry them in the stove, first on one side and then on the other. All plums are done in the same manner.

Quince Paste—Proceed as for apple paste.

Orange Paste.—Squeeze the juice from Seville or sweet oranges, and boil the peels in three or four waters to take off part of their bitterness. In the first put a little salt. When they are quite tender remove the white pith or pulp, and pound them quite fine in a mortar, with part of the juice, using sufficient to make them into a paste; then pass it and the remaining portion of the juice through a sieve into a preserving pan; put it on the fire, and reduce to a marmalade; weigh it, and for each pound take three-quarters of a pound of loaf sugar; clarify and boil to the blow; mix it with the paste, evaporate over a gentle fire to a good consistence, and finish as apple. The rinds of the oranges may be pared off before they are squeezed, which, if boiled in one water, will be sufficient, as the pith of the peel is extremely bitter and indigestible, and the flavour or essential oil is contained only in the yellow porous part.

Lemon Paste.—Make as orange paste, using part of the juice and double the weight of sugar; or it may be made by using only the pounded peel with the same weight of sugar.

Raspberry Cakes.—Take ripe raspberries, press the juice from half of them, and put the pulp back with the others; reduce them on the fire. To each pound of pulp add two pounds of loaf sugar in powder; put it again on the fire, stirring it constantly until the sugar is melted. Have a tin ring, with a handle by the side, about the size of an old penny piece, and twice the thickness; wet the ring, and place it on your small pewter or tin plates, fill it with the paste, smoothing over the top with a knife; then remove the ring, and the cake will remain. Lay them off in rows, and make three or four marks on the top with the handle of a table spoon; put them in the stove to dry, turn them with a thin knife, and put them again into the stove to dry perfectly. Place them in boxes, with paper between each layer.

The residue from the making of raspberry vinegar may be employed for this purpose, or they may be made by adding a pound of fine powdered sugar to a pound of jam. Any of the fruit pastes may be formed into cakes like these, or into drops, by forcing them out on paper with a small tin pipe and bladder attached to it.

Clear Cakes, or Jelly Cakes.—Take the filtered juice of fruits, as for jelly (see Jellies); to each pint of juice add one pound of loaf sugar, dissolve it in the juice thoroughly, place it on the fire and heat it, but it must not boil; put it into small pots, moulds, or glasses, so as to form cakes about half an inch thick; place them in the stove, which must not be too hot, or they will melt instead of forming a jelly; about seventy-five or eighty degrees Fahrenheit is quite hot enough. When a crust has formed on the top, take out the cakes by carefully turning the knife round the sides of the pot, place them on small plates of tin or pewter, and dry on the other side. When

dry they can be cut into diamonds, squares, or any shape you please. These are certainly some of the most delicate and beautiful of this class which were ever invented, fit even to gratify the palate of the most fastidious. The fruit from which they are made should be gathered as fresh as it possibly can, except apples, as the mucilage is injured by keeping, and if the fruit has fermented it is entirely destroyed.

Pastes formed with Gum—Pâte de Guimauve—Marsh-Mallow Paste.—Gum Arabic three pounds, roots of fresh marsh-mallows eight ounces, one dozen of rennet apples, loaf sugar three pounds. Peel, core, and cut the apples in pieces. Cleanse the roots, and slice them lengthways in an oblique direction; add this to seven pints of water; soft or river water is the best when filtered; put it on the fire and boil for a quarter of an hour, or until reduced to six pints; pound and sift the gum through a hair sieve; strain the decoction into a pan with the gum; put it on a moderate fire, or into a bain-marie, stirring it until the gum is perfectly dissolved; then strain it through a coarse towel or tamis cloth, the ends being twisted by two persons; add it to the sugar, which has been previously clarified and boiled to the feather; dry it well over the fire, keeping it constantly stirred from the bottom. When it has acquired a thick consistence, take the whites of eighteen eggs, and whip them to a strong froth; add them to the paste, and dry until it does not stick to the hand when it is applied to it; add a little essence of neroli, or a large glassful of double orange-flower water, and evaporate again to the same consistence. Pour it on a marble slab well dusted with starch-powder, flatten it with the hand; the next day cut it into strips, powder each strip, and put them in boxes. Powder the bottom that they may not stick.

Pâte de Gomme Arabique—Arabic Paste.—Very

white gum Arabic two pounds, sugar two pounds, orange-flower water four ounces, the whites of twelve eggs. Pound and sift the gum, add it to the water, dissolve and evaporate it over a slow fire, or in the bain-marie, stirring it constantly until it is reduced to the consistence of honey with the sugar in syrup. Whip the whites to a strong snow; add it to the paste with the orange-flower water, gradually; stir and finish as marsh-mallow paste, for which this is mostly substituted, and much used for coughs. It should be very white, light, and spongy.

Pâte des Dattes—*Date Paste*.—Dates one pound, gum Senegal three pounds, loaf sugar in syrup two pounds and a half, orange-flower water four ounces. Make as marsh mallow paste, using rather more water to dissolve the gum.

Pâte des Jujubes—*Jujube Paste*.—Jujubes four ounces, currants washed and picked four ounces, raisins stoned one pound, sugar two pounds, very white gum Arabic two pounds and a half. Open the jujubes, and boil them with the currants and raisins in two quarts of water until reduced to three pints; strain the decoction through a tamis cloth, twisted by two persons; add the sugar in syrup with the gum, which has been previously pounded and dissolved in a sufficient quantity of water; evaporate it by a moderate heat, as *pâte de guimauve*; pour it into tin moulds slightly oiled, having edges about a quarter of an inch deep; dry in the stove, take it out of the tins, and cut it with a pair of scissors into small diamonds.

Pâte de Gomme Senegal—*Senegal Paste*.—Gum Senegal two pounds, sugar one pound. Dissolve the gum in orange-flower water and common water; or dissolve it in common water, and flavour with essence of neroli; strain, add the sugar, clarify it with white of egg; scum; evaporate; and finish as *pâte*

de jujube. This is usually sold for jujube paste, or else picked gum Arabic made into a paste as Senegal, and coloured with prepared cochineal or saffron.

Pâte de blanche Réglisse—White Liquorice Paste.—This is made the same as marsh-mallow paste, using liquorice-root instead of mallow. It may be made without the eggs, and finished as jujubes.

Pâte de Réglisse noir—Black Liquorice Paste.—The best refined liquorice one pound, gum Arabic four pounds, loaf sugar two pounds, Florence orris-root one ounce. Dissolve the gum and liquorice in seven pints of water, keeping it stirred over a slow fire; add the sugar in syrup with the orris-root, evaporate to a paste, and finish as jujubes.

Gomme des Jujubes—Jujube Gum.—Jujubes one pound, very white and picked gum Arabic two pounds, powdered sugar two ounces. Pound the jujubes in a marble mortar with five pints of water, put the whole into a pan and boil until reduced to three; strain the decoction through a cloth, beat up the white of an egg with a glass of water, and mix part of it with the decoction as it boils; throw in a little at a time of the remaining part, to check the ebullition. When it is all used, take off the scum, put it again on the fire to evaporate the water, adding at the same time the gum and sugar, powdered and passed through a horse-hair sieve. Stir it with the spatula until dissolved. When it is of the consistence of honey, place it in the bain-marie, and neither stir nor touch it, that it may be clear. When it has acquired body enough, so as not to stick to the back of the hand when applied to it, pour it into moulds previously oiled with good olive oil, as for jujubes; place in the stove to finish drying; when dry take it out, and cut it in small pieces.

Pâte de jujube and white liquorice may be done

in the same manner, using only half the quantity of sugar.

Gomme des Dattes.—One pound of dates, two pounds of very white picked gum Arabic, sugar two ounces. Make as jujubes.

Gum of Violets.—Violet flowers one pound, picked gum two pounds, sugar four ounces in syrup. Pour three pints of water at the boiling point on the flowers in an earthen jar; stop it perfectly close, and keep it in a warm place for ten or twelve hours; strain the infusion by expression into a flat pan or dish, place it on an inclination, and let it rest for an hour that the fæces may subside; pour off the clear gently from the bottom or settling, and add to it six grains of turnsole bruised, and six grains of carmine, as this clear infusion is not sufficiently coloured to give it the beautiful tint of the violet. Mix in the powdered gum and sugar, stir it over a moderate fire until dissolved, pass it through a sieve, and finish in the bain-marie as jujubes.

Any of these gums, when dry, may be crystallized.

Almond Paste—Orgeat Paste.—One pound of sweet almonds, a quarter of a pound of bitter almonds, two pounds of sugar. Blanch the almonds, and throw them into clean cold water as they are done, to preserve their whiteness; let them soak for a day, then dry them in a cloth, and pound them quite fine in a mortar, sprinkling them with orange-flower water or lemon juice to prevent their oiling; then with a spatula rub them through a fine wire sieve; what will not pass through, pound again until they are quite fine; clarify the sugar and boil it to the ball; mix the almonds with it, and stir it well over the fire with the spatula until it comes together; then take it from the fire, and put it into an earthen pan

to cool, when cold, pound it again, make it into sticks or tablets, dusting the board or stone with powdered sugar; or put into pots, and tie bladder over it, to be used as wanted.

SECTION XIII.—FRUITS PRESERVED WITH SUGAR.

Wet Fruits.—Most of the fruits are first prepared by being blanched, that is, boiled in water; they are then drained and put into boiling syrup, where they remain for a day. The syrup being now weakened with the juice of the fruit, it is poured off, more sugar is added, and it is reduced again to syrup by boiling, and poured hot over the fruit: this is continued until it is fully saturated with sugar, which may be known by the syrup being no longer weakened with the juice of the fruit. Keep them in a dry but not warm place, as too much heat will cause them to ferment, more especially if they are not fully incorporated with sugar; nor in a damp place, or they will become mouldy.

All green fruits require to be greened, so as to bring them to their original colour, for in blanching they assume a yellowish cast: this is probably occasioned by a portion of the alkali being extracted in the boiling. The green colour of fruits and leaves depends upon an excess of alkali; and in proportion as acid or alkali prevails in them, so are they coloured from red to violet, blue, and green; therefore if alkali is added to the water, the colour is retained. This is exemplified in the everyday domestic duties of the cook, who uses soda, potash, or muriate of soda (common salt), in boiling her greens or cabbages. I have here stated the principle on which their colour depends, to show that there is no necessity for green fruits being kept for some time in brass or copper

pans, whereby they take up a portion of verdigris, which often proves injurious.

Prick your fruit several times with a fork or large needle to allow the sugar to penetrate the more freely. As you do them, throw them into a pan of cold water, which prevents their turning black at the places where they are pricked; add a little soda or potash, and set the pan by the side of the stove to heat gradually, but not to boil, or at the most only to simmer; when the fruit swims, take it out with a skimmer, and put it into cold water; if they are not green enough, drain them and put them again into the water they were first boiled in, or else into a weak syrup; place them by the side of the stove to heat gradually as before, stirring them occasionally. They may be covered with vine leaves, or a handful of spinach; if salt is used in greening them, they will require to be soaked for a few hours in clean cold water, to again extract that portion which they have absorbed, or it will spoil their flavour. It is best to blanch fruits which are very juicy in hard or pump water, or with the addition of a little alum to river water.

Green Apricots, wet.—Get the apricots before the stone is formed in them, when they can be pierced through with a pin or needle; put them into a bag with plenty of salt, and shake them about in it to take off the down and silkiness of the skin; take them out and put them in cold water. Or this may be done by making a strong lie with wood ashes; strain it through a cloth; let it be quite clear; make it boiling hot and throw in your apricots; let them remain about a minute, take them out, and put them into cold water; then take off the fur when they are cool by either rubbing them with your hands in the water, or drain, and rub them in a towel or coarse cloth. Put them into another pan of cold water, and place

them over a slow fire to heat gradually and scald. When they are quite soft and can be crushed between the finger and thumb, take them out and throw them into cold water; drain them quite dry in sieves; make a thin syrup, that is, at the small thread; boil it in a flat preserving pan, put in the apricots, give them a few boils, and take off any scum that rises; have sufficient syrup in the pan that the fruit may float; pour them with the syrup into an earthen pan, and keep them covered until the next day; then drain off the syrup, add more syrup or sugar to it, and boil to the large thread; put in the fruit, and let the syrup boil over them four or five times; repeat these operations for five days, increasing the syrup a degree each day until it has attained the large pearl, taking off the scum each time: it must not exceed this or it will crystallize; put them in dry pans covered with syrup, for use; or, when cold, drain them from the syrup, and put them into small glasses by themselves, or mixed with other fruits preserved in the same manner; fill the vacancies with apple jelly, wet a piece of bladder and tie it over the top.

Green Apricots, pared wet.—Pare off the skin with a small knife, and throw them into cold water as you do them; green, and finish as the former.

Ripe Apricots, wet.—Have the fruit not too ripe, make an incision in the side to take out the stone, or they may be cut in halves, and peeled or preserved with the skin on; have a preserving pan on the fire with water boiling, throw them in, and as they rise to the top take them out and put them into cold water. If they are blanched too much they will break, therefore it is better to have two pans of cold water to throw them in, so as those may be separated which are broken; drain them from the water, and put them in a thin syrup which is boiling on the fire; do not put in too many at a time; put in the

hardest first, and give them about a dozen boils; take them out carefully and put them in an earthen pan; give the soft ones only two or three boils; cover them with the syrup and let them remain until the next day; drain the syrup from them, add more sugar to it, and boil and skim it until it has acquired the degree of the large thread; give the apricots two or three boils in it; the soft ones only require to have the syrup poured on them boiling hot; repeat this for four or five successive days, and on the last day boil the syrup to the large pearl. If you find, after they are finished, that the syrup has been boiled too high, mix a little powdered alum with a spoonful of water, and add to it.

Ripe Peaches, whole, wet.—Get the finest peaches, without any green spots on the skin; prick them all over with a large needle to the stone, throw them into cold water, blanch, and finish as ripe apricots.

Ripe Nectarines, wet.—Preserve as peaches.

Figs, wet.—Get the figs nearly ripe, prick them four or five times with the point of a knife, throw them into cold water, put them on the fire and boil until they are tender; finish as ripe apricots.

Greengages, wet.—Let the fruit be not quite ripe but sound, prick them with a fork or needle, and throw them into cold water; scald and green them; when they are of a fine green, increase the heat; take them out with a skimmer when they swim, and throw them into cold water; drain them on sieves; put them in syrup that is boiling; give them two or three boils in it; pour them into an earthen pan; drain the syrup from them the next day, add more sugar and boil to the thread, taking off any scum which may arise; pour the syrup over them boiling hot; repeat this for five or six days, and finish as for green apricots.

Mogul Plums.—Take the largest Mogul plums, with clear skins, not quite ripe, prick them all over

with a fork and throw them into cold spring water; scald them until tender, taking care not to have too many in the pan at a time, nor blanch them too much, as they will soon break in pieces; take them out and throw them into cold water, drain, and put in just sufficient fruit to cover the bottom of the pan; cover with boiling syrup, and let them have a dozen boils in it; finish as ripe apricots.

It would be a needless repetition to give separate directions for preserving every sort of plum, as the instructions already given will enable any person of ordinary discernment to manage any other sort not mentioned.

Damsons, wet — Prick the damsons and throw them into boiling syrup, and let them boil in it until the skins burst, skimming it as they boil; do not put in more than will swim; let them remain until the next day; drain the syrup, and add more sugar to bring it to the proper degree; give them a few boils in it, and repeat the same on the next day; finish as other plums.

Green Gooseberries, wet. — Get some fine large gooseberries, prick them four or five times with a large needle, and throw them into cold water, put them on the fire to blanch; when they rise take them out and throw them into cold water, green them, and preserve as green apricots.

Green Gooseberries in the form of Hops, wet. — Take the finest green gooseberries for this purpose, slit each gooseberry in four or six slits, but so as not to come asunder, and take out the seeds. Take a needle and white thread, make a knot at the end, and pass the needle through the stalk end of the gooseberry that is split; take another and do the same, making the end of one go partly into the other; continue this until you have six or eight on the thread, which will resemble a hop; fasten the end

of the thread, and dispose of all of them in a similar manner, throwing them into cold water as they are finished; blanch them, and let them lie in the water they were blanched in all night; the next day green them, and finish as for green gooseberries, wet.

Cucumbers or Gherkins, wet.—Let them be clear, free from all spots, and of a good green; prick them all over with a fork, throw them into a pan of water mixed with a handful of salt, let them lie in this for a day or two, then take them out, put them into fresh water and blanch them until tender; the next day drain and green them in a weak syrup; increase the degree of the syrup each day, giving them a few boils in it each time; if the cucumbers are large, you can cut them in two and take out the seeds. After the second boiling in the syrup, let them remain in it for two or three days before it is boiled again: finish as green apricots; a few pieces of ginger may be added.

Green Melons.—Proceed as for cucumbers. They may be preserved either whole or in slices. When dried and candied it imitates green citron.

Ripe Melons, wet.—Cut the melons in slices, and pare off the outside skin; let them lie in salt and water for two or three days, take them out, drain and blanch in fresh water until tender; throw them into cold water; the next day drain them on sieves; give them a boil in a very thin syrup increase the degree of the syrup, and pour it boiling hot over them. A little lemon-juice, vinegar, or a handful of bruised ginger may be added to the syrup, which will much improve the flavour; boil the syrup, increasing it a degree for three or four days, as for other fruits.

Lemons whole, wet.—Choose some fine large lemons with clear skins, carve the rind with a small penknife into flowers, stars, diamonds, or any design your fancy may suggest, taking care not to cut deeper than the white pith of the peel; throw them into a

pan of cold water, put them on the fire and let them boil gently until a strong straw or the head of a pin will penetrate the rind ; throw them into cold water ; when cold, drain them dry, and put them into a thin syrup when boiling ; give them five or six boils in it, and put them in an earthen pan ; the next day drain the syrup from them, and add more sugar or syrup to increase it a degree ; boil it, and when it boils, pour it over the lemons ; repeat this for two days ; on the third day let the lemons boil in the syrup for four or five minutes ; the next day boil the syrup and pour it over them ; when you find the syrup has penetrated the lemons, and they look clear, drain the syrup from them, adding more, if necessary, so as to have sufficient to keep them well covered ; put them in glasses and pour the syrup over them. When cold, cut a piece of bladder to the size of the glass, wet it, and tie it down.

Oranges whole, wet.—These are preserved the same as lemons.

Whole Orange Peels.—Choose your oranges of a fine clear skin ; make a hole at the stalk end, large enough to admit the end of a spoon, with which you take out the pulp ; throw them in salt and water, and let them remain for three or four days or a week ; drain them from this, and put them into a pan of fresh water, and let them boil until the end of a straw may be pushed through the peel ; throw them into cold water ; with the end of a spoon clear out any part of the pulp which may have adhered to them ; drain off the water ; put them in a tub or pan, and pour boiling syrup over them ; let them remain in this for three or four days ; take them from the syrup and boil it again, adding more as the peels imbibe it, so as to keep them well covered ; boil the syrup once every four or five days, and pour it hot over them ; do this until it has fully penetrated them.

Orange or Lemon Peels, wet.—Cut the fruit in half; express the juice, and throw the peels into salt and water, as for whole orange peels, preserving them in the same way. If you have any quantity, put them one in the other, and pack them in rows round the bottom of a large tub or cask; proceed in this manner, putting them in layers until it is half or three parts full; have a hole near the bottom, with a cork fitted into it. When the syrup requires boiling, draw it off at the hole.

Orange or Lemon Chips.—Cut the thickest peels into long thin pieces, turning them off so as to make but one or two chips from a peel, in a similar manner as you would pare off the rind of an apple, only, instead of holding the knife in an oblique direction, so as to take off the surface, it is held more parallel, so as to cut the whole substance of the peel. Let them be as near as possible of the same thickness, or the peel may be sliced across, so as to form rings; preserve them as for whole orange peels. If they are wanted in a hurry, they may be blanched without being put into salt and water. Boil them until they can be crushed between the finger and thumb; drain them from the water, and pour boiling syrup over them as for others.

Angelica, wet.—Cut some stalks of fine tender angelica into pieces about six inches long, or any other suitable length. Put them into a pan of water on the fire until they are soft, then put them into cold water; draw off the skin and strings with a knife, and put them into cold water again; next boil them until they look whitish; let them cool; drain them from the water, and put them in an earthen pan; pour boiling syrup over them until they float. The next day drain it off, without disturbing the angelica; boil with more sugar, if required, taking off any scum which may rise; pour it over the stalks whilst it is

hot; repeat this for seven or eight days, boiling the syrup the last time to the large pearl.

Eringo Root.—Choose your roots without knots; wash them clean, and boil in water until they are tender; peel off the outside skin, slit them, take out the pith, and throw them into cold water; drain, put them into a thin syrup, and give them a few boils; afterwards finish as angelica.

Pine Apple whole, wet.—Take off the top and stem of the pine; prick the apple with a pointed knife in six or eight places, or more, to the centre; put the pine in a pan with plenty of water, and boil it until tender; take it out and throw it into cold water; when cold, drain it quite dry, and pour over it, boiling hot, some syrup at the small thread. In two days pour off the syrup and boil it to a degree higher, adding more sugar if necessary; repeat this every third day, until the pine is sufficiently impregnated with the sugar; the last time the sugar must be at the large pearl. The top of the pine is greened and preserved as other green fruits, putting it in its proper place when finished. Carefully skim the sugar each time that the pine may be quite clear.

Pine Apple Chips or Slices.—Take off the top and stalk, and pare the outside of the pine; cut it into slices half an inch thick; strew over the bottom of a pan with powdered sugar; cover it with slices of pine-apple, then a layer of sugar, and again of pine, and so alternately until the whole is disposed of, covering the top with a layer of sugar; place it in a warm place or stove for three or four days; then boil it with the juice of two or three lemons for ten minutes or a quarter of an hour, taking off any scum which rises. If the syrup is too thick, add a little water; continue this boiling for three or four days, when it will be fit for use.

Cherries, wet or dry.—Take the best Kentish or

May Duke cherries ; cut a quill as if you were going to make a pen, only, instead of its being sharp, it must be round at the end ; hold the cherry in your left hand, and with the other push the quill into it by the side of the stalk, as far as the top of the stone ; then take hold of the stalk, and with the aid of the quill pull the stone out with the stalk, without breaking the fruit in picces, which would be the ease otherwise. Put sufficient clarified sugar into a preserving pan for the cherries to swim ; boil it to the blow, and throw in the prepared fruit ; let them boil in it for five or ten minutes, keeping them under the syrup by pushing them down with a flat pieec of wood having a handle at the back. The next day drain off the syrup ; reduce it by boiling ; put in the cherries and boil them again for five minutes ; repeat this for four days, giving the cherries a few boils in the syrup each day. If they are required dry, drain the syrup from them, spread them on sieves, and dry in the stove at a good heat, turning them every day. Put only sufficient on the sieves so as just to cover the bottom. Keep them in boxes papered, or in glasses.

Whole Cherries.—Shorten the stalks of some fine cherries ; put them into an earthen pan, with a layer of powdered sugar and a layer of cherries, covering the top with sugar ; let them stand for two or three days ; put them on the fire in a preserving pan, and let them boil in the syrup for three or four minutes ; repeat this for four days. Keep them in syrup, or dry, when they are wanted, as the preceeding ; they may also be tied together to form bunches, and preserved in the same manner.

Grapes in Bunches.—Get some bunches of fine grapes, before they are perfectly ripe ; take out the stones with a large pin or needle ; put them in a preserving pan, with plenty of water and a little salt ;

let them simmer on the fire about a quarter of an hour; cover the pan, and let them stand in this water until the next day; pour this off, and add fresh; in a few hours drain them dry, and put them into a thin syrup, which must be boiling on the fire; give them a few boils in it, or the grapes may be put into the syrup when cold, and heat it gradually until it boils; put them in an earthen pan; the next day drain off the syrup, reduce it to the small pearl, adding more sugar if necessary, and skimming it; pour it boiling over the grapes; repeat this four or five times, finishing with syrup at the large pearl, and keep them well covered in it.

Currants in Bunches, wet.—Take the finest currants you can get, either red or white; stone them with a pin or the nib of a pen, taking care not to cut them more than is necessary; tie six or eight bunches together with a piece of thread, or they may be tied to a small piece of stick. Take as much clarified sugar as will allow the currants to float; or put one pound of sugar to each pound of currants; clarify and boil it to the blow; put in your fruit, and let them have five or six boils; take the scum off with paper; repeat the boiling next day, when they are finished. If you boil them again, the syrup will become a jelly, when you can put them in glasses.

Barberries in Bunches, wet.—Proceed as for currants.

Raspberries, whole, wet.—Take the finest and driest raspberries you can get, but not over-ripe. Take the same quantity of sugar in weight as you have of raspberries; clarify and boil it to the blow; put in the fruit, and give them a dozen boils, taking off the scum with paper; drain off the syrup, and put them into pots that are very dry; cover them with apple jelly, or make a jelly with the syrup the raspberries were boiled in, with the addition of a little currant or

cherry juice. When cold tie them over with brandy papers and bladder.

Pears, whole, wet.—Take some fine large pears, either eating or baking, but those for eating must not be too ripe; they are fit for this purpose when the pips are black. Throw them into a pan of water, with two ounces of alum; put them on the fire, and scald them until tender; take them out, and throw them into cold water; pare off the rind very thin and even; prick them several times with a fork or pin to the core, and scald them again until they are quite soft, or until the head of a pin or straw will pass through them; a little lemon juice may be added to the water in the second boiling, or with the syrup; when they are finished blanching, throw them into cold water; when cold drain them from this, and put them into a thin syrup at the small thread; give them two or three boils in this; skim, and put them in an earthen pan; the next day drain off the syrup, add more sugar, and reduce it another degree; boil your pears in it, as before, and repeat the process for four days, finishing with the syrup at the large pearl. Keep them in covered pans for use.

Pears, Red, wet.—Take some good baking or other pears; pare and cut them in half, and take out the cores with a little scoop for the purpose; if they are first blanched a little, they can be pared easier and better. Boil them in water, with sugar sufficient to make it only just sweet, a little lemon juice, and a few allspice or cloves. Put a piece of pewter, or a pewter spoon, in the bottom of the pan, and boil them until they are quite tender and of a fine red; or prepared cochineal may be added instead, using sufficient to give the desired tint; take out the fruit, and add enough sugar to the water they were boiled in to make a syrup; boil to the large thread; put in the pears, and give them two or three boils in it; skim,

and put them in an earthen pan ; boil the syrup twice more, and pour it on them, raising it to the degree of the large pearl. Keep them in dry pans for use.

Quinces, Red or White, wet.—Preserve as pears.

For these preserves it is a good plan to have flat pieces of wood, like covers, to put on the fruit, so as to keep it under the syrup.

Ginger, wet.—This article is mostly imported from India and China, in jars or pots, but in England it is only to be obtained from the hot-house. About the middle or end of September the plant is fit to be taken up. Divide the largest races or roots from the smaller ones ; take the largest for preserving, as the smaller ones will serve for planting ; clean and cut the roots into neat pieces, and throw them into cold water as you do them. Boil them three times in fresh water, throwing them into cold each time, or soak them in water for four or five days ; drain, and boil in fresh water till tender ; take them out, and throw them into cold water, in which has been mixed a little lemon juice or vinegar ; peel them, and throw them into the water again as they are done, to keep them white ; let the roots remain in this a few hours, then drain them dry on sieves ; put them in an earthen pan ; pour over them when cold a thin syrup, at the small thread ; let them be well covered with the syrup ; in two or three days drain off the syrup ; add more sugar, and boil to the large thread ; when cold pour it over the ginger. After three or four days boil the sugar a degree higher and pour it in hot ; continue this until your roots look clear and are fully impregnated with sugar ; finish with the syrup at the large pearl.

Candied Fruit.—Any fruit or peel which has been first preserved in syrup may be candied.

Take the fruit out of the syrup, and let it drain on sieves ; then dip the sieve with the fruit into luke-

warm water, to wash off the syrup from the surface ; take it out, let it drain, and dry it in the stove. Boil some fresh syrup to the blow ; put in the fruit, and give it a boil in it. The fruit when it is put in will reduce the sugar, it must therefore be boiled to the same degree again. With a spoon or spatula rub the sugar against the side of the pan, to grain it ; when it begins to whiten put the fruit in the white part separately ; with two forks take it out and lay it on sieves or wire frames, for the sugar to drain from it.

Dried Fruit.—Any of those fruits which are preserved with syrup may be dried ; they are also better when fresh dried. Warm the fruit in the syrup ; take it out, and drain ; spread it on sieves or wires ; put them in the stove to dry, turning them frequently until perfectly dried. When the fruit is drained from the syrup, it may be dusted with loaf-sugar when you put it in the stove, and for two or three times when you turn it. Too much heat will blacken the fruit, therefore let the heat of the stove be about 100° or 110° of Fahrenheit's thermometer.

SECTION XIV.—COMPOTES.

THESE are prepared in the same way as wet fruits, and served in compotiers, which are deep glass dishes belonging to the dessert service.

In summer, ripe fruits are simply blanched and boiled up in a thin syrup, a little lemon-juice is added, and served ; these are only for present use. In winter, take those fruits which are preserved in syrup, drain, dip them in luke-warm water, and serve in a thin syrup, with the juice of a lemon.

Green Apricot Compote.—Prepare your fruit as for green apricots, wet ; throw them into syrup that is boiling ; take them off the fire, and let them

remain for four or five hours; drain off the syrup, and boil to the thread; pour it over the fruit; when cold, serve.

Ripe Apricot Compote.—Cut the apricots in half, and peel them; blanch them in water that is just sweetened; drain them from this; add sugar to the water, and boil to the thread; pour it over the apricots; let them remain in it for two or three hours; then drain and boil the syrup again to the large thread; pour it over the apricots; add the juice of a lemon, with some of the kernels blanched; when cold, serve.

Peaches, nectarines, and greengages are done as these.

Compote of Apples, with Jelly.—Pare some fine pippins very neatly; core them with an apple corer; put them into syrup, and boil gently; put only just sufficient syrup to cover them, that it may be reduced to a jelly; if it has not body enough, cut a few in pieces and put with it; when the apples look clear and are tender, take them out; add to the apples, while boiling, the juice and yellow rind of a lemon, with a few cloves. Strain the syrup, and reduce it to a jelly; pour part into the compotier, and when cold dress the apples tastefully on it. The hole where the core was taken out may be filled with any sort of marmalade or jelly. Cut the remaining part of the jelly in pieces or croutons, and place round or over them; ornament them with red currant or other jelly, in any way your fancy may dictate.

Apple Compote.—Take some fine apples; peel and cut them in halves, quarters, or thick slices, and take out the cores; blanch them in a very thin syrup until tender; take them out, and add more sugar to that which they were boiled in, with the yellow peel and juice of a lemon and a few cloves; reduce it to the small pearl; put in the apples, and give them a

few boils in it; let them remain until cold; take off the scum, if any; strain the syrup, and serve.

Pears and quinces are done as these, or coloured as for pears wet, which see.

Grape Compote.—Pick and stone some fine ripe grapes; put them in boiling syrup at the large pearl; give them three or four boils in it; let them cool, take off the scum, and serve.

Currant Compote.—Take the largest currants you can get, either red or white; pick out the seeds, and throw them into boiling syrup at the large pearl; give them two or three boils, and let them stand in the syrup; take off the scum, and serve when cold.

Raspberry Compote.—Choose some very fine and dry raspberries; boil some syrup to the blow, take it from the fire, and throw in the raspberries; let them stand for four or five hours; stir them gently; put them on the fire, and let the syrup just boil; take off the scum, and when cold serve.

Strawberry Compote.—Take off the stalks, and throw them into syrup at the small thread; when it is near boiling, take them off, let them cool, and serve; or they may be prepared by putting them in the compotier, and covering them with white currant jelly warmed.

Macedoine of Fruits.—Put some of all sorts of fruits, prepared for compotes, together, and serve in the same glass, with syrup and a little lemon-juice.

Cherry Compote.—Cut off the stalks of some fine cherries about half way; wash them in cold water, and let them drain quite dry; boil some syrup to the large pearl; throw in the cherries, and let them boil quickly for five or six boils; take them off, and let them remain until cold; take off the scum, if any, and dress them in the compotier, with their stalks upwards; pour in the syrup, and serve, adding the juice of a lemon.

Damsons, mulberries, Orlean plums, and barberries are done the same way, taking out the stones of the plums and barberries; the cherries may be also stoned.

SECTION XV.—BRANDY FRUITS.

ALL fruits may be preserved with brandy; but only the best sort of plums, such as apricots, magnum bonums, peaches, greengages, mirabelles, &c., with cherries and pears, are those usually done.

The fruit should be gathered before it is perfectly ripe, when it is prepared by blanching, &c., precisely the same as if it were intended for wet fruits; those preserved in this manner are often taken from their syrup and put in brandy; when the fruits are blanched put them for a day or two in a thin syrup, then take them out and arrange them in glasses; cover them with white brandy, into which you have mixed five ounces of powdered white sugar candy, and tie them over with bladder. Cherries are an exception to this rule. Take some fine Morello cherries, and cut off half the stalk; put them into brandy, and stop them close for a month; drain off the brandy, and to each quart add eight ounces of powdered loaf sugar or white sugar candy; dissolve and pour it over the cherries. Keep them well covered with spirit.

SECTION XVI.—ON BOTTLED FRUITS, OR FRUITS PRESERVED WITHOUT SUGAR.

CHOOSE wide-mouthed bottles, which are made for this purpose; let them be clean and perfectly dry;

gather the fruit during dry weather, and fill the bottles if possible on the same day; shake the fruit well down by knocking the bottom edge of the bottle on the table; prepare some corks or bungs (which are made for fruit bottles by being cut the contrary way of the grain); pour boiling water over them, which will deprive them of any smell or dirt; repeat this a second time, if necessary, letting them remain in the water each time until it is cold; cork the bottles well, and tie them over with wire or string. M. Appert recommends that they should be luted with a mixture made of fresh slaked lime and soft cheese; this is to be spread on rags and tied over the mouth of the bottle; they are then placed in a boiler and cold water as far as their mouths; a cover is put on with a piece of linen round it to prevent evaporation, the water is then heated to boiling, and is kept at this point until it is considered that the fruit is boiled in their own water or juice; the fire is then withdrawn, and they are suffered to remain in the water for an hour, when it may be drawn off. The method which I in general pursue is to raise the water to the boiling point, and keep it at this heat for about an hour, according to the nature of the fruit; they are then suffered to remain in the water until it is cold. I find this way generally successful. When they are taken out, cover the mouths of the bottles with melted rosin or bottle wax.

This method is much superior to that of preparing them with water, which renders the fruit flat, dead, and insipid, the whole of the flavour of the fruit being imparted to the water, except when bottled very green, when it does not lose it so much.

A method I have tried with pretty good success, is to obtain the fruit before it is ripe, bottle it, and fill the bottles with cold spring water, in which is dissolved some oxymuriate of potass, cork them close, and

cover the mouths with rosin. Plums done in this way had the natural bloom on them. I found these were better than those done in a similar manner by heat. A few bottles of them fermented. After the fermentation was over I corked them close, and in six months I opened some, when they had a smell like wine, and were not so flat as those which were well preserved by heat, and filled with water; these certainly look well to the eye, but they are only fit to be used for large pies, when the water should be made into a syrup with sugar, and put in with it.

The first method, which is the same as Appert's, or nearly so, is decidedly the best; it retains the natural flavour, and may be used for any purpose it is required, it being as good as fresh fruit.

The pulp or juice of fruits may also be preserved in the same way; if the fruit is not ripe enough to pulp, put it into a jar and stop it close, place it in a kettle of cold water, heat it until it boils, and let it continue at this point for ten minutes or a quarter of an hour; take it out and pass the pulp through a hair-sieve; bottle and finish as before.

This method of M. Appert's is not altogether original, but was anticipated by the experiments of Mr. Boyle. A system somewhat on the same principle has been practised by many in the trade for years, which is this. The fruit is bottled and carefully corked, the bottles are then placed on the top of the oven, where they are suffered to remain for twenty-four or forty-eight hours, according to the temperature, which is generally from 120° to 140° Fahrenheit's thermometer. At one place, I ascertained the heat during the process, and it averaged 130° . Another system practised is that of heating the bottles in a cool oven.

The principle endeavoured to be accomplished is to destroy the small portion of oxygen contained in

the bottle after being corked, by converting it into carbonic acid gas; but some other unknown agent must be produced, as this may be done without heat, which the fermentation of the fruit would cause by itself; for, according to the experiments of Hildebrand, had the oxygen of the atmosphere remained unaltered, it would have caused putrefaction; for he found that oxygen, mixed with a small quantity of azote, promoted putrefaction more than pure oxygen. He found that hydrogen gas was the greatest preservative, nitrous next, and after this carbonic. These experiments were tried on meat, but they may be equally applicable in respect to fruit, when the auxiliary produced by heat is not definitely known.

Fruit should always be bottled and boiled on the same day it is gathered; for the longer the fruit lies together the more it sweats; fermentation commences, which is accelerated in the bottles by heat, and there is great danger of their bursting.

All decayed or bruised fruit should be carefully excluded, and that should be preferred which is not quite ripe.

When finished the bottles should be kept in a cool dry place.

SECTION XVII.—OF COOLING DRINKS FOR BALLS AND ROUTS.

THESE may be made either with fresh fruit, jam, or syrups. The last merely requires the addition of water and lemon-juice to make them palatable.

Gooseberry, Currant, Raspberry, and Strawberry Waters.—Mash either of these fruits when ripe, and press out the juice through a hair-sieve, add a little water to it, and give it a boil; then filter it through

a flannel bag, add some syrup, a little lemon-juice and water to make it palatable, but rich, although not too sweet, which is often the fault with these and compotes; ice them the same as wine, and serve.

Cherry Water.—Pound the cherries with the stones to obtain the flavour of the kernel, and make as above.

Apricot and Peach Water as cherry water: or, if made from jam, add a few bitter almonds pounded quite fine, using a little water and lemon-juice to pound them with; add them to the jam with water and lemon-juice to palate; strain it through a lawn sieve, ice, and serve.

Orgeat Water.—Blanch half a pound of sweet almonds and one ounce of bitter; pound them very fine in a mortar, using water to prevent their oiling; use one quart of water and a glass of orange-flower water, and make as directed for orgeat syrup; add sugar to palate, strain it through a lawn sieve, ice, and serve.

Lemonade.—Rub off the yellow rinds of six lemons on sugar; squeeze out their juice, and add to it a pint and a half of water, and half a pint of syrup, the white of an egg, with the sugar which has imbibed the oil from the rind; mix them well together; if not to your palate, alter it; strain through a flannel bag, ice, and serve.

Orangeade is made as lemonade, using China oranges instead of the lemons.

SECTION XVIII.—ICES.

Utensils requisite for making.—1st. Pewter pots of various sizes, suitable to the quantity of mixture intended to be frozen. Tin or zinc will not answer

the purpose, as it congeals the mixture too quickly without allowing it a sufficient time to become properly incorporated, and forms it in lumps like hailstones.

2nd. Half pint, pint, pint and a half, and quart moulds, and some in the form of fruits made to open in the centre with a hinge: these also require to be made of the same material.

3rd. Ice pails. These should be adapted to the size of the pots, about the same depth, and eight or ten inches more in diameter; if even greater, it is immaterial, the depth being the principal consideration, for the deeper it is the greater caution is required to prevent the salt from entering the mixture; for as the ice dissolves, the pot descends, and the water runs under the cover, which, being salt, spoils the contents; neither have you a sufficient basis whereon the pot rests so as to mix your creams, &c., with the spatula; consequently, half your exertions are lost by its constant sinking when you apply the least effort to scrape it from the sides. There should be a hole near the bottom, with a cork fitted into it, so as to be withdrawn at pleasure, that the water may be allowed to run off when there is too much.

4th. The spatula. This is an instrument somewhat resembling a gardener's spade; it should be made of stout copper and tinned, the blade being about four inches long by three in width, round at the end, and having a socket to receive a wooden handle; this is for scraping the cream, &c., from the sides of the pot as it freezes, and for mixing it.

5th. Either a large mortar and pestle, or a strong box and mallet for pounding the ice.

6th. A spade wherewith to mix the ice and salt together, filling your pails, &c.

7th. A tin case or box, with a kind of drawer fitted to it so as to be drawn out at pleasure, and having

shelves or divisions ; this is for keeping the ices in the form of fruits, after they are finished, until required for the table.

To freeze Ices.—This is accomplished through the medium of ice. Of itself, it does not contain a sufficient frigorific power to congeal a liquid body to the required consistence without an auxiliary ; the usual one employed is that of salt. As a general rule, take about two pounds to every six pounds of ice, which I think will be nearly the quantity required. I cannot state precisely, as it is the custom to mix it by guess ; but note, the freezing property depends on the quantity of salt which is used, consequently, the more there is mixed with the ice the quicker are the creams, &c., frozen.

Pound a sufficient quantity of ice small, and let some salt be well mixed with it ; place the pot containing the mixture in a pail, which you fill (the latter) with pounded ice and salt as far as the lid ; strew a handful of salt on the top of the ice, let it remain a few minutes until you have similarly disposed of others, as three or four may be done at a time if required, then whirl them round briskly by means of the handles for five minutes, take off the lids one at a time, and with the spatula stir or carry the unfrozen part well round the sides, turning the pot also with the left hand ; continue this for two or three minutes, which serves to soften what has already frozen, as well as helps to freeze the remaining portion ; then scrape it from the sides, put on the lids, whirl round again briskly as before directed, repeating the same operations every four or five minutes. As it forms into a consistence, do not spare your labour in well working or mixing it together when you scrape it down, so as to make it perfectly smooth and free from lumps, for the smoothness of your ice depends on this operation ; continue to

freeze until the whole is well set. Ice, when well frozen, should be about the consistence of butter, tough to the feel, of a good colour, and without any lumps in it. Those which contain too much syrup cannot be frozen to the degree required, and those which have too little freeze hard, and feel short and crisp, like compressed or frozen snow, which arises from having too many watery particles in it, by the excess of either water or milk, according to the nature of your ice. In either case, it may be ascertained when you commence freezing, by the first coat which is formed round the sides. It should then be altered by either adding more cream or water, with juice or pulp of fruit, or other flavouring matter, in proportion, as the case may be, if too rich, and *vice versâ*, by the addition of more syrup, &c., when poor; but at all times the necessity of altering them should be avoided, as the component parts cannot be so perfectly blended together without considerable extra labour, as if they were properly mixed at the commencement.

During the time of freezing, or after the creams, &c., are moulded and set up, if there is too much water in the pail, the frigorific power is lessened; a little increases it, as at first it is only a solution of the salt; but as the ice dissolves and mixes with it, it decreases; therefore, when it comes to the top, drain the water off, and fill up with fresh salt and ice.

When the ices are properly frozen, take out the pots, drain off the water, empty the pail, again replace them and fill with fresh salt and ice as before; then spread the creams over the sides of the pot, when they are ready for use, if they are intended to be served in a shop, or by glassfuls. Should it be required for moulds, line the bottom with a piece of paper before you put it on; if there is no impression or figure on the top, you may cover that also with

paper; in filling them press it well in, so as to fill every part; leave a little projecting above the surface to form the top, which you put on; pack the moulds in a pail, and fill the vacancies with pounded ice well mixed with plenty of salt, strew a handful also on the top.

Ices should be moulded from half an hour to an hour before they are required to be served.

When you want to turn them out, wash the mould well in cold water that no salt may remain on it; take off the bottom and top, and the ice will come out easily.

For fruit moulds, fill each with either cream or water ice of the same kind as that which you would represent, and for the better resemblance to nature, preserve the stone with the stalk and leaves of each, which put in their proper places, allowing the leaves to project outside; close the mould, wrap it in paper, and place it in ice as others; when you want to turn them out, wash the shape in luke-warm water to take off the paper, and be careful that you do not injure the leaves, as they will often be found frozen to it; dip it again in water, open it and take out the ice, which you colour to nature with camel's-hair pencils and liquid colour (see Colours); the down or bloom is represented by dusting it with dry colour in powder, tied in a small muslin bag, or by means of a dry camel's-hair pencil; line the shelves of the case with paper or vine leaves, and put in the fruit as it is finished; let the case be surrounded with pounded ice and salt, as for moulds.

Ices may be divided into three classes, viz.: cream, custard, and water. These derive their names from the basis of which they are composed, the flavouring matter mixed with it giving the other definition; thus we say, raspberry cream and raspberry water; but custard ices are not so particularly defined as the

others by the basis, and either only receives the name of the flavour given to it, or as that of cream.

Cream Ices.—These are composed of cream, or three-fourths cream and one-fourth milk, with the juice or pulp of fruit either fresh or preserved, and syrup or sugar so blended together as the taste of one may not predominate over that of another; but if either is in excess it should be that of the fruit.

Raspberry of fresh Fruit.—One quart of raspberries, one quart of cream, three-quarters of a pound or a pound of sugar, a few ripe currants and gooseberries, or currants and ripe cherries may be added, instead of all raspberries, which is much approved by some, and the juice of two lemons; * mash the fruit, and pass it through a sieve to take out the skins and seeds; mix it with the other articles; add a little prepared cochineal to heighten the colour; put it in the pot and freeze.

Note.—All ices made with red fruit require this addition of cochineal.

Raspberry, from Jam.—One pound of jam, one quart of cream, about six ounces of sugar or syrup, to palate, and the juice of two lemons. Mix as before.

Strawberry.—As raspberry.

Currant Ice from fresh Fruit.—One pint and a half of ripe currants, half a pint of raspberries, one quart of cream, the juice of two lemons, and twelve ounces of sugar. Mix as raspberry.

Currant Ice.—Preserved Fruit.—The same proportions as raspberry, using either jam or jelly.

* The quantity of fruit required for these ices will depend in a great measure on the quality of the fruit and the seasons in which it is produced; a pint and a half will be found sufficient when it is good in fine seasons; the quantity stated in each receipt is the greatest required.

Barberry Ice.—Use the same proportions as before. For fresh barberries, first soften them by either boiling them in the syrup you intend to use, or put them in a stew-pan, and stir them over the fire until tender; pass them through a sieve, mix, and freeze as raspberry. The barberries, having much acid, do not require any lemon-juice to be mixed with them.

Apricot.—Fresh Fruit.—Twenty-four fine ripe apricots, one quart of cream, twelve ounces of sugar, the juice of two lemons, with a few of the kernels blanched; mash the apricots, rub them through a sieve, mix, and freeze.

Apricot, from Jam.—Twelve ounces of jam, one quart of cream, the juice of two lemons, eight ounces of sugar, a few kernels or bitter almonds blanched and pounded fine; rub the whole through a sieve, and freeze.

Peach Ice.—The same proportions as apricot.

Pine Apple.—Fresh Fruit.—One pound of fresh pine apple, half a pint of syrup in which a pine has been preserved, two or three slices of the pine apple cut in small dice, and the juice of three lemons; pound or grate the apple, pass it through a sieve, mix with a quart of cream, and freeze.

Pine Apple.—Preserved Fruit.—Eight ounces of preserved pine, or four slices cut in small dice, one quart of cream, the juice of three lemons, and sufficient syrup from the pine to sweeten it; pound the preserved pine, mix lemons with the cream, &c., and freeze.

Ginger Ice.—Six ounces of preserved ginger, one quart of cream, half a pint of the syrup from the ginger, sugar sufficient to sweeten it with, and the juice of two lemons; pound the ginger in a mortar add the cream, &c., and freeze.

Seville Orange Ice Cream.—Six oranges, three lemons, one quart of cream, and twelve ounces of sugar or of syrup, to palate; rub off the yellow rind of two or three of the oranges on part of the sugar, scrape it off with a knife, squeeze out the juice of the oranges and lemons, and strain it; mix it with the cream and the sugar on which the rind was rubbed, add the other part of the sugar, dissolve, and freeze.

China Orange Ice Cream.—Eight oranges, two lemons, one quart of cream, and twelve ounces of sugar; rub off the rind of four or five of the oranges and one lemon on sugar, squeeze, and strain the juice; add the cream, &c., mix, and freeze.

Cherry Ice Cream.—Two pounds of cherries, one quart of cream, and twelve ounces of sugar or syrup; pound the cherries, with the stones, in a mortar, adding a few ripe gooseberries or currants if approved of; pass the pulp through a sieve, add the cream and sugar with the juice of two lemons and a little cochineal, mix, and freeze.

With preserved fruit it is made the same way, adding a little noyau, or a few bitter almonds pounded for the flavour of the kernel.

Lemon Ice Cream.—Six large lemons, one quart of cream, and twelve ounces of sugar or half a pint of syrup; grate off the peels of three of the lemons into a basin, squeeze the juice to it, let it stand for two or three hours, strain, add the cream and syrup, and freeze or mix as Seville orange ice.

Mille Fruit Cream Ice.—Make a lemon cream ice, and flavour it with elder flowers, mix in some preserved dried fruits and peels cut in small pieces. Before it is moulded, sprinkle it with prepared cochineal, and mix it a little, so as it may appear in veins or marbled.

Custard Ices.—These are similarly composed to

the cream ices, with the addition of six eggs to each quart of cream, or seven or eight if part milk is used. All kinds of nuts, liquours, essences, infusions, or biscuits, are principally mixed with it.

Custard for Ices.—One quart of cream, six eggs, and twelve ounces of powdered loaf sugar; break the eggs into a stew-pan, and whisk them together; add the cream and sugar; when well mixed, place it on the fire, and continue stirring it from the bottom with the whisk, to prevent burning, until it gets thick; take it from the fire, continue to stir it for a few minutes, and pass it through a sieve. If the custard be suffered to boil it will curdle.

Plombière Ice, or Swiss Pudding.—Take one pint and a half of cream and half a pint of milk, and make them into a custard with seven yolks of eggs; flavour it either with Curaçoa, Maraschino, or rum; freeze the custard, and add about a quarter of a pound of dried cherries, orange, lemon, and citron peel, and currants; mix these in the iced custard. The Curaçoa or rum, &c., may be poured over the fruit when you commence freezing, or before, which I consider preferable to flavouring the custard. Prepare the mould, which is round, and something in the shape of a melon, made to open in the centre with a hinge. Strew over the inside with some clean currants, fill the mould, and close it; immerse it in some fresh ice mixed with salt. Before it is required to be turned out, prepare a dish as follows:—

The Sauce.—Make a little custard, and flavour it with brandy; dissolve some isinglass in water or milk, and when it is nearly cold add sufficient to the custard to set it; pour it into the dish you intend to serve it on. As soon as it is set, turn out the pudding on it and serve.

Almond or Orgeat Ice Cream.—One quart of cream, eight ounces of sweet almonds, two ounces of

bitter almonds, twelve ounces of sugar, and two ounces of orange-flower water; blanch the almonds, and pound them quite fine in a mortar, using the orange-flower water in pounding, to prevent their oiling; rub them through a sieve, and pound again the remaining portion which has not passed through, until they are fine enough; then mix them with the cream, and make it into a custard with eggs, as the preceding; strain, and when cold freeze.

Pistachio Ice Cream.—One quart of cream, eight ounces of pistachios, and twelve ounces of sugar; blanch and pound the pistachios with a little of the cream; mix, and finish as orgeat ice, flavouring it with a little essence of cédrat, or the rind of a fresh citron rubbed on sugar; or the custard may be flavoured by boiling in it a little cinnamon and mace and the rind of a lemon; colour it with spinach.

Filbert Ice Cream.—One quart of cream, one pound of nuts, and twelve ounces of sugar or one pint of syrup; break the nuts, and roast the kernels in the oven; when done, pound them with a little cream, make a custard, and finish as almond ice.

Chestnut Ice.—As the preceding, taking off the husks and skin.

Burnt Filbert Ice Cream.—Use the same proportions as in filbert ice; put the kernels into the syrup, and boil them until they crack; stir the sugar with a spatula, that it may grain and adhere to the nuts; when cold, pound them with the sugar quite fine; make a custard, and mix them with it, allowing for the sugar that is used for the nuts; mix, and freeze as the others.

Burnt Almond Ice Cream.—Make as burnt filbert ice.

Burnt Ice Cream.—To a quart of custard for ice put into a stew-pan four ounces of powdered sugar place it by the side of the stove or over the fire to

melt, and burn of a fine brown, stirring it constantly ; when it has attained the proper colour, mix the custard quickly with it ; when cold freeze.

Coffee Ice Cream.—One quart of cream, five ounces of Mocha coffee, and twelve ounces of sugar ; roast the coffee in a coarse iron or other stew-pan, keeping it constantly stirred until it is a good brown colour ; throw it into the custard cream whilst it is quite hot, and cover it closely ; let it infuse for an hour or two, then strain and freeze.

The cream may be made with an infusion of coffee, thus : take the quantity of coffee, fresh roasted and ground to a fine powder ; put this into a common glass bottle or decanter, and pour on it sufficient cold river water to moisten the powder and make an infusion ; stop the bottle close, and let it remain all night ; the next day filter the infusion by passing it through some fine lawn or blotting paper placed in a glass funnel ; by this process a very strong and superior infusion is obtained, which contains the whole of the aroma of the coffee. Dr. Ratier observes,—“ I have tried this process with boiling and with cold water ; and I have assured myself, by comparison, that the powder drained by the cold water, and treated then with boiling water, gave nothing but a water slightly tinted with yellow, and devoid of odour and flavour. It is, besides, proper to pass an equal quantity of water to the first, over the grounds, in order that the second water may serve for new powder.” Use this for flavouring the custard, and freeze.

Chocolate Ice.—One quart of cream, six ounces of chocolate, and ten ounces of sugar ; dissolve the chocolate in a little water, or make the sugar into a syrup, to dissolve it by putting it on the side of the stove, or over the fire ; add the cream and eggs, and make it into a custard as before ; when cold freeze.

Tea Ice.—One quart of cream, two ounces of the best green tea, and twelve ounces of sugar; put the tea into a cup, and pour on it a little cold river water in which has been dissolved a small portion of carbonate of soda, about as much as may be placed on a fourpenny piece; let it remain for an hour or two, then add a little boiling water, sufficient in the whole to make a very strong infusion; or the boiling water may be dispensed with, adding more cold water in proportion, and letting it soak longer, when a superior infusion will be obtained; strain it, and add to the cream and eggs. Finish as the others.

Vanilla Ice.—One quart of cream, half an ounce of vanilla, twelve ounces of sugar; cut the vanilla into small pieces, and pound it with the sugar until it is quite fine, add it to the cream and eggs, make it into a custard, strain, and when cold freeze, or it may be flavoured with the essence of vanilla. (See Essence.)

Brown Bread Ice.—Make a quart of custard for ice, crumble a piece of brown bread quite fine, put it on a tin, and dry it just inside the mouth of the oven, or in a very hot stove; freeze the cream, and when the bread is cold work or stir it into it.

Ratafia Cream.—For a quart of cream, as for brown bread, crumble six or eight ounces of ratafia cakes quite fine, and mix with the cream when it is frozen.

Biscuit Cream.—Crumble some Savoy biscuits and a few ratafias, add the rind of two lemons rubbed on sugar, and mix in the cream when frozen.

Noyau Cream Ice.—Make a custard cream, and flavour it with noyau; finish as almond ice.

Maraschino Cream Ice.—Make as noyau, flavouring it with Maraschino de Zara. All liqueur ices are made the same way, using the different liqueurs with which each is named. or they may be made in this

way :—Take a quart of cream, put it into the ice-pot with six ounces of sugar, which you place in the ice ; work or whisk it well about the sides with a whisk for five minutes ; add a glassful of liqueur, work this well together, then whisk the whites of two eggs to a strong froth, add two ounces of sugar to them, mix this well with the cream, and freeze to the required consistence. This produces a very beautiful, soft, and mellow cream.

Water Ices.—These are the pulp or juice of fruits mixed with syrup, lemon juice, and a little water, so as to bring them to a good flavour and consistence when frozen.

Currant Water Ice.—Two pounds of ripe currants, eight ounces of raspberries and ripe cherries, one pint of syrup, the juice of two lemons and one pint of water.

Pick and mash the fruit, and strain it through a sieve, add the syrup and water, put it in the ice-pot and freeze.

Cherry Water Ice.—Cherries two pounds, either Kentish or May Duke, ripe gooseberries four ounces, one pint of syrup, half a pint of water, and the juice of two lemons ; pound the cherries with the stones in a mortar, pass the juice of the fruit through a sieve, mix the syrup and water with it, and freeze ; if it should not freeze sufficiently, add a little more water.

Gooseberry Water Ice.—Ripe gooseberries two pounds, the red hairy sort is best, one pound of cherries, one pint of syrup, one pint of water, and the juice of two lemons ; mash the fruit and pass it through a sieve, mix it with the syrup and water, and freeze.

Raspberry Water Ice.—One quart of ripe raspberries, four ounces of ripe cherries and currants, half a pint of syrup, half a pint of water, and the juice of two lemons. Mash the fruit and pass the juice

through a sieve, mix the syrup water and lemon with it, and freeze.

Strawberry Water Ice.—Two pottles of the best scarlet pines, one pint of syrup, half a pint of water, and the juice of two lemons.

Mix as currant. All red fruits require the addition of a little prepared cochineal to heighten the colour.

Apricot Water Ice.—Eighteen or twenty fine ripe apricots, according to their size, half a pint of syrup, half a pint of water, the juice of two lemons.

Mash the apricots and pass them through a sieve, mix the pulp with the syrup water and lemon-juice, break the stones, blanch the kernels, and pound them fine with a little water, pass them through a sieve, add to the mixture, and freeze.

Peach Water Ice.—One pound of the pulp of ripe peaches, half a pint of syrup, half a pint of water, the juice of two lemons. Mix as apricot. If the fruit is not ripe enough to pulp, open them and take out the stones, put them in a stewpan with the syrup and water, boil until tender, and pass them through a seive; mix in the pounded kernels; when cold freeze.

Damson Ice.—One quart of damsons, one pint of syrup, half a pint of water. Mix as peach ice. Magnum bonums, Orleans, greengages, or any other plum may be done in the same way.

Pine-apple Water Ice—Half a pint of pine syrup, one pint of water, the juice of two lemons, and three or four slices of preserved pine cut into small dice; mix and freeze.

Fresh Pine-apple Water Ice.—One pound of pine-apple, one pint of syrup, half a pint of water, and the juice of two lemons. Cut the pine in pieces, and put it into a stewpan with the syrup and water, and boil until tender; pass it through a sieve, add the lemon-juice, with two or three slices of the pine cut in small dice, mix and when cold freeze. The pine may be

pounded instead of being boiled, and mixed with the syrup, &c.

The whole of these ices may be made with preserved fruit instead of fresh.

One pound of jam or jelly, one pint of water, the juice of two lemons, and syrup sufficient to make it palatable.

Apple Water Ice.—Pare and core some fine apples, cut them in pieces into a preserving pan with sufficient water for them to float, boil until they are reduced to a marmalade, then strain: to a pint of apple-water add half a pint of syrup, the juice of a lemon, and a little water; when cold freeze.

Pear Water Ice.—Prepare as apple ice.

Orange Water Ice.—One pint of China orange-juice, one pint of syrup, half a pint of water, the juice of four large lemons.

Rub off the yellow rind of four oranges and two lemons on sugar, serap it off and mix with the strained juice syrup and water.

Lemon Water Ice.—Half a pint of lemon juice, half a pint of water, one pint of syrup, the peels of four lemons rubbed off on sugar, or the yellow rind may be pared or grated off, and the juice squeezed to it in a basin; let it remain for an hour or two, then strain, mix, and freeze; whip up the whites of three eggs to a strong froth, with a little sugar, as for meringues; when the ice is beginning to set, work this well in, which will make it eat beautifully soft and delicious; freeze to the required consistence; if the ice is to be served in glasses, the meringue may be added after it has been frozen. Orange-water ice may be done the same.

Maraschino Water Ice.—Make a lemon ice as the above, using less water, and making up the deficiency with Maraschino; but be careful the taste of the lemon does not prevail too much; add more water

and syrup to correct it if it does. Noyau and all other liquour ices are made the same way, using that to flavour the lemon ice which it bears the name of. Champagne and wine ices the same.

Punch Water Ice.—Make either a good lemon ice, or use some orange juice with the lemons, in the proportion of one orange to two lemons; either rub off the yellow rind of the lemons on sugar, or pare it very thin, and soak it in the spirit for a few hours; when the ice is beginning to set, work in the whites of three eggs to each quart, beaten to a strong froth, and mixed with sugar as for meringue, or add the whites without whisking them; when it is nearly frozen, take out the pot from the ice, and mix well with it a glass each of rum and brandy, or sufficient to make it a good flavour; some like the taste of the rum to predominate, but in this case of course you will be guided by the wish of your employer. In general the prevailing flavour distinguishes it by name, as rum-punch or brandy-punch ice; after the spirit is well mixed, replace the pot and finish freezing. If champagne, arrack, or tea is added, it is then termed champagne-punch ice, arrack-punch ice, &c.

Punch à la Romaine—Roman Punch Ice.—Make a quart of lemon ice, and flavour it with a glass or two of each, of rum, brandy, champagne, and Maraschino; when it is frozen, to each quart take the whites of three eggs and whip them to a very strong froth; boil half a pound of sugar to the ball, and rub it with a spoon or spatula against the sides to grain it; when it turns white, mix it quickly with the whites of eggs, stir it lightly together, when cold and add it to the ice; mix it well together, and serve it in glasses; less sugar must be used in the ice, so as to allow for that which is used in making the meringue.

Mille Fruit Water Ice.—Make a good lemon ice, with a pint of syrup, half a pint of water, and as

much strained lemon juice as will give it the desired flavour, with some elder flowers infused in syrup; when the ice is frozen, mix in some preserved green fruits and peels cut in small dice; if any large fruits are used, such as apricots, peaches, pine-apple, &c., they must be also cut in dice like the peels; sprinkle it with prepared cochineal, and mix it a little so as it may appear in veins.

SECTION XIX.—ON ESSENCES.

THE essences or essential oils sold for general use are or ought to be obtained by distillation; but for many purposes they may be obtained equally as good, and, in some cases, superior, without. As these are often adulterated with olive or nut oils, or with spirits of wine, the fixed oils may be detected by pouring some of the suspected essence on a piece of clean writing paper, and holding it before the fire; the quantity of fixed oil it contains will remain, leaving a greasy mark, whereas the pure essential oil will evaporate without leaving any appearance; if spirits of wine be added, pour a little water or oil of turpentine into the adulterated sample, and it will turn milky, as the two will not unite without producing this effect. It is often sophisticated with the oil of turpentine, which is the lightest of all essential oils; in this case, rub a drop over the hand and hold it by the fire, when it may be recognized by the smell, or if burnt it will give out a dense black smoke.

Rectified spirits of wine dissolves the volatile oil and resin of vegetables (their taste and smell most frequently reside in these), whilst water acts on the saline and mucilaginous parts. Proof spirit, which is a mixture of both these, extracts all their virtues, and through this we are enabled to obtain the

essence or tincture of any vegetable, of superior quality to that generally sold, and at considerably less expense. The essential oil of lemons or oranges is obtained by rubbing off the yellow rind on the rough surface of a piece of loaf sugar, which is much superior for flavour to that produced by any other means. Scrape off the sugar after it has imbibed the oil, and dry it in a gentle heat, put it into small glazed pots, and tie them over with bladder; it will keep any length of time unimpaired. The same observation holds good as regards all fruit whose flavour or essential oil resides in its peel.

Essence of Lemon.—Eight ounces of lemon peel, ten ounces of rectified spirits of wine. Pare or grate off the yellow rind of the lemon very thin and weigh it, put it into a bottle and pour the spirit on it, stop it close, and let it steep for fourteen days, when it is fit for use. Proof gin or white rum will serve equally well, but not such as is generally sold at the gin-shops; this is excellent for ices, creams, lemonade, &c. In many establishments, where quantities of peel are thrown away, the cost of this would be comparatively trifling, compared with the price of the inferior oil generally sold.

Essence of Orange.—Make as lemon, using only four ounces of the yellow rind.

Essence of Bergamot.—From the peel of the bergamot lemon.

Essence de Cédrat.—From the yellow part of the fresh citron peel; it may also be obtained by pressing the yellow part of the peel between two glass plates, and by the distillation of the flowers of the citron-tree.

Allspice, Cloves, Cinnamon, or Nutmegs, &c.—Two ounces of spice, one pint of proof spirit. Bruise the spice, put it into a bottle, stop it close, let it remain fourteen days, and filter for use.

The oil from nutmegs is often extracted from them by decoction, before they are brought to the market, and their orifices again closed with powdered saffras; this may be ascertained by the lightness of the nut; if it is punctured with a pin, the oil will be pressed from it when good. These oils may be obtained by expression or distillation; they hold resin in solution, and consequently sink in water. The essences usually sold are made by adding half an ounce of the pure oil to one pint of spirits of wine.

Essence of Ginger.—The best Jamaica or China ginger two ounces, proof spirit one pint. Powder the ginger, mix it with the spirit, stop close, and let it steep for twelve or fourteen days.

This is the same as is sold for “Oxley’s concentrated essence of Jamaica ginger”—a mere solution of ginger in rectified spirit.—*Paris’s Pharmacologia.*

Essence of Peppermint.—“A spirituous solution of the essential oil, coloured green by spinach leaves.” *Ibid.* This essential oil is obtained by distillation. Four pounds of dried leaves yield one ounce.

Essence of Vanilla.—Vanilla two ounces, water ten ounces, rectified spirit three-quarters of an ounce. Cut the vanilla in small pieces, and pound it fine in a marble mortar, with loaf sugar (about a pound), adding the white of an egg and the spirit. Put it into a glazed pot, tie a piece of writing paper over it, and make a hole in it with a pin; stand the pot in warm water, keeping it at that heat for twenty-four hours, then strain for use.

One ounce of this is equal to a drachm of vanilla, and is excellent for flavouring ices, creams, liqueurs, &c.

Essence of Bitter Almonds.—This is obtained by distilling the cake or residue of the almonds after the oil has been expressed from them. It is a deadly poison, containing prussic acid, like all other nuts or leaves which possess the bitter principle. Flics drop

dead when passing over the still when it is in operation. The essence usually sold is one ounce of oil to seven ounces of rectified spirit.

SECTION XX.—MERINGUES AND ICING.

Dry Meringues, in the form of Eggs.—Ten whites of eggs, twelve ounces of sugar.

Obtain the newest laid eggs, and separate the white from the yolk very carefully; put the whites into a pan, which must be quite free from grease; whisk them to a very strong froth so as it will support an egg, or even a greater weight; have the sugar pounded and sifted through a lawn sieve, and mix it in as lightly as possible; spread some paper on pieces of board about an inch thick, then with a table or dessert spoon drop them on the paper about two inches asunder, dust them with fine powdered loaf sugar, blow off all that does not adhere, and put them into a cool oven to bake until they are a nice light brown; if the oven should be too warm, when the surface gets dry or hardened cover them with paper; as soon as they are done take them off with a knife, press the inside or soft part down with the top or the back of a spoon, place them on sieves, and put them into the stove to dry; when they are required to be served fill them with any kind of preserved fruit or cream, if it is rather acid, the better, and put two together.

The quality of the meringues will depend on the eggs being well whipped to a very strong froth, and also on the quantity of sugar, for if there is not enough they will eat tough.

Italian Meringues.—One pound of sugar, the whites of six eggs. Clarify the sugar and boil it to the blow; in the mean time whip up the whites as for the last, take the sugar from the fire and rub it a little against the sides of the pan to grain it; as soon as it begins to turn white, mix in the whipped eggs,

stirring the sugar well from the bottom and sides of the pan with the whisk or spatula ; lay them off, and bake as dry meringues ; these may be coloured by adding the liquid colour to the syrup so as to give the desired tint ; and either of them may be flavoured by rubbing off the peel of oranges, lemons, or cédrats on sugar, and scraping it off as it imbibes the oil ; or it may be flavoured with vanilla, by cutting it in small pieces and pounding it with some sugar, or with any liqueur by adding a spoonful or two when you mix the eggs or sugar. They may also be varied in form, and baked on tin or iron plates instead of wood, that the bottoms may be quite firm. The tops may be covered with almonds or pistachios, blanched and cut small or in fillets, or with currants, or coloured sugars ; the whole depending on the taste and ingenuity of the artist.

Mushrooms.—To make these, take either of the pastes for meringues or light icing, as for cakes ; put some into a bag in the shape of a cone, with a tin pipe at the end, the same as used for Savoy biscuits ; lay them off in drops the size you wish them to be, on iron plates rubbed quite clean and dry, bake them as you would meringues, make also a smaller drop to form the stalk ; when they are baked, take them off the tin and scoop out a little with your finger from the bottom near the edge, to form the hollow rough surface underneath ; then dry them in the stove ; scrape some chocolate and dissolve it in a little warm water, and rub a little over the rough part underneath ; then place the stalk in the centre, fixing it with a little icing, and let the flat part which was on the tin be placed outermost to represent where it was cut.

Meringue Montée—*Meringue de Venice*, &c.—Fill a bag as for mushrooms, with either of the

mixtures of meringue, and lay it off in rings, either round or oval, &c., to suit the size and form of the dish on which it is to be served ; make four, five, or six rings, according to the height it is required ; form them on clean tins buttered and dusted with sugar and flour and bake them. Lay off a number of drops in the form of a spiral cone, or perhaps I may be better understood if I say like drops one on the other, commencing with a large one and ending at a point ; when you have the whole prepared and baked, take the rings and place them one on the other, fixing them with icing ; as soon as it is set, spread some icing over the sides to make it smooth, in the same manner as you would ice the side of a wedding or twelfth cake, then stick on the points (the surface and top may be covered with them) by placing one in the opening or space left between two ; or they are often put on so as to form trellis-work, draperies, &c., and the intervening spaces ornamented with chocolate or drops, &c., according to taste ; or the large rings may be made to form a pyramid either oval or round, which may be piped or ornamented according to fancy as the other. Some persons prefer making the points of light icing. Cups, vases, or other ornaments, are made by forming the body on a mould with almond paste, and when dried or baked, the surface is iced and the points placed on according to fancy, and ornamented with drops, piping, &c. ; these are in general filled with cream when served ; also a few wet fruits may be tastefully arranged on the top, or they may be filled with any sort of light fancy biscuit or pastry for variety.

Icing for Wedding or Twelfth Cakes, &c.—Pound, and sift some treble-refined sugar through a lawn sieve, and put it into an earthen pan, which must be quite free from grease ; to each pound of sifted sugar add the whites of three eggs, or sufficient to make it

into a paste of a moderate consistence, then with a wooden spoon or spatula beat it well, using a little lemon-juice occasionally, and more white of egg if you find that it will bear it without making it too thin, until you have a nice light icing, which will hang to the sides of the pan and spoon; or, if it is dropped from the spoon, it should remain on the top without speedily losing the form it assumed. A pan of icing, when well beat and finished, should contain as much again in bulk as it was at the commencement: use sufficient lemon-juice to give the icing a slight acid, or it will scale off the cake in large pieces when it is cut. Many prefer the pyroligneous acid to lemon-juice, but the flavour is not so delicate, and it always retains a smell of the acid; neither did I ever find, as some assert, that it improves the quality and appearance of the icing; the only advantage derived from it is that of economy.

On piping Cakes, Bon-bons, &c.—This is a method of ornamenting wedding, twelfth-cakes, and other articles with icing, by means of small pipes or tubes; these are most generally made with writing-paper folded in the form of a cone, in the same manner as a grocer makes up his papers for small lots of sugar, tea, &c. The tube is filled with icing, made as for cakes, the base of the cone, or the place where it was filled, is turned down to prevent the sides opening, and the escape of the icing; the point is then cut off with a sharp knife or scissors, so as to make a hole sufficiently large to form the icing, when squeezed or pressed out, in a thread of the required size, and which will either be fine or coarse according to the length of the point which is cut off. If the hole at the point of the cone is not perfectly straight when the icing is pressed out, it will form a spiral thread, which is very inconvenient to work with. Stars borders, flowers, and different devices, are

formed on cakes after they are iced, the execution of which depends on the ability and ingenuity of the artist. Baskets, Chinese, and other temples, &c., are formed on moulds by these means, first giving them a coating of white wax, which is brushed over them after it is melted, and when cold, the icing is formed on it like trellis-work; when finished, the mould is warmed, and the icing easily comes off. Some of the pipes which are used cannot be formed with paper, as the tape and star-pipes, which are made of tin, having a bag fastened to them in a similar manner to that generally used for dropping out Savoy biscuits, macaroons, &c., only much smaller, the point of the tin tube of the one being fluted to form a star, and in the other it is flat, so that when the icing is forced or squeezed through, it comes out in a broad thin sheet, like a piece of tape. I employ a set of pipes made of tin, with small bags fastened to them, which are made from the gut of the ox, now much used for tying over preserves instead of bladders, as it is much clearer and has no veins; these are of different dimensions; the orifice of the round ones commences at the size of a common pin, and the tape pipes from a quarter to half an inch in width. I find these much better than paper ones, as the trouble and time which is lost in constantly making new ones is amply repaid by the others, as they are not very expensive and are always ready for use. These pipes should be in the hands of the confectioner what the pencil or brush is to the painter, —capable of performing wonders with men of genius. Some of the bon-bons, which may be seen in the shops, are proofs of what I assert; and many things are so cleverly done, that many persons would believe that they were either formed in a mould or modelled. I have not space to enlarge further on this subject, but much more might be given in explanation; there-

fore the artist must be guided by his own genius and fancy.*

SECTION XXI.—GUM PASTE.

TAKE one ounce of picked gum-tragacanth; wash it in water, to take off any dust or dirt; put it into a clean pot, and pour on it rather more less half a pint of water, or sufficient to cover the gum about an inch; stir it frequently, to accelerate the solution; it will take twenty-four hours to dissolve; then squeeze it out through a coarse cloth, as directed for lozenges, taking care that everything employed in the making is very clean, or it will spoil the colour; put it into a mortar, adding gradually six or eight ounces of treble-refined sugar, sifted through a lawn sieve; work it well with the pestle, until it is incorporated and becomes a very white smooth paste; put it into a glazed pot, cover the paste with a damp cloth, and turn the pot upside-down on an even surface, to exclude the air. When it is wanted, take a little of it and put it on a clean marble, and work some more sugar into it (which has been sifted through a lawn sieve) with the fingers, until it is a firm paste, which will break when pulled; if it is not stiff enough, it will roll up under the knife when you cut it from the impressions in your paste boards; if it is too stiff, work in a little of your prepared paste with it, to soften it. When your paste works harsh and cracks, it has too much gum in it; in this case use a little water to work it down; and if the gum is too thin it will crack, and dry too soon from the excess of sugar, therefore add some more strained gum that has not been mixed with sugar. The same observations also

* An excellent work for the use of the ornamental confectioner is Page's 'Acanthus,' which may be obtained of any bookseller.

holds good with respect to lozenges. If it is required coloured, add a little prepared cochineal, or any other colour in fine powder; mix it in on the stone. If they are to be flavoured with any essence, add it at the same time. This paste is fit to be eaten, and is the foundation of gum-paste comfits, dragées, &c.

Common Gum Paste.—Take some of the prepared paste, as for the last, and work into it on the stone some very fine starch powder, using equal quantities of starch and sugar. This may also be made with rice flour, instead of starch. These are chiefly used for pièces montées. It may be moulded or modelled into any form, or cut out from figures or borders carved in wood, called gum-paste boards, using a little starch powder to prevent its sticking whilst working it; a little tied up in a small muslin bag is the handiest for use. When you want to get the paste from the impressions in the boards, take a small piece of paste and press it at each end; if it does not come out very readily, moisten the piece, and touch that in the impression at three or four places, which, being damp, adheres to it and draws it out.

Gum Paste, for Ornaments.—Prepare some gum, as before; moisten plaster of Paris with water, making it of the consistence of thick cream; let it set, and dry it in the stove until perfectly dry; pound it, and moisten it again; let it dry as before; then pound and sift it through a lawn sieve, and use it to mix with the gum instead of sugar; add a little starch powder, to harden it. This is principally used for making the ornaments which are put on twelfth-cakes. If any parts are required to be put together, the paste should remain until half dry before it is finished, as it is very apt to shrink.

Paste for gilding on.—Take some dissolved gum, as before, and make it into a paste with whitening ground very fine, adding a little starch powder to

finish it; or it may be made with some of the prepared sugar gum-paste, finishing it with whitening and starch powder.

Papier Mâché.—Take the cuttings of either white or brown paper, and boil them in water until reduced to a paste; press the water from it when cold enough, and pound it well in a mortar; put it into a pan or glazed pipkin, with a little gum Arabic, Senegal, or common glue, made into rather a thick mucilage with water; this is to give it tenacity; place it on the fire and stir it until well incorporated; if it is not stiff enough when cold, flour may be added to make it of the proper consistence; it should be about the same substance as gum paste. This may be used for forming the rocks of a *pièce montée*, or for vases, *cassolettes*, &c.; in fact, anything you desire may be made with it, as with gum paste; it is very durable, not being easily broken, and is very light; it is now much used, instead of composition, for the decorations of rooms and articles of furniture. It is from this that paper trays, snuff boxes, &c., are manufactured, and it is much used in France for making various beautiful little ornaments for containing *bon-bons*, &c. It may be moulded or modelled into any form, or cut from impressions in wood or plaster, &c. When the object is dry, give it a coating of composition, made with parchment size, and whitening or lamp-black, mixed to the consistence of oil paint, according to the colour it is required. Smooth it with glass paper, and paint or gild as wood, or japan it.*

To gild Gum Paste, &c.—Those articles which are gilt are seldom intended to be eaten, therefore first give them a coating of parchment size and whitening,

* For further particulars, and for the method of taking the impressions of moulds with composition, see the 'Guide to Trade—The Carver and Gilder,' Knight and Co., p. 53.

as the papier mâchée, or paint them with oil colour. When this is dry, brush over a coat of gold size, and let it remain until nearly dry, or so as it will stick to the fingers a little; then take a small dry brush, termed by gilders a tip; rub a little grease over the back of your hand, and pass the brush over it gently; apply it to the gold leaf, which it will take up, and place it on the part you intend to gild; blow on it to make it smooth; the gold leaf may first be divided into small pieces with a knife on a leather pad or cushion, to suit the size of your work; rub it over gently with a piece of wool, to make it appear glossy. Those parts which have not taken the gold, just breathe on, then apply a small piece of the leaf, and rub again with the wool. If your piece is intended to be eaten, let the paste be perfectly dry and smooth; then prepare some mucilage of gum Arabic, strain it, and grind it well with an equal portion of white sugar candy; lay it over the part you intend to gild with a stiff brush; when dry, breathe on it, so as to moisten it, and gild as before.

To Bronze Gum Paste.—Prepare your object, if not to be eaten, as for gilding, giving it a coat of invisible green, prepared with turpentine, a little japan gold size, and a small portion of oil; when it is nearly dry, dip a fitch pencil in some bronze powder, shake off the loose pieces which hang about the brush, and apply it to the parts you wish to assume the appearance of copper, which are in general the most prominent.

Another method.—Smooth your figure with sand-paper, and give it a coat of dissolved isinglass, or parchment size; when this is dry, give it a coat of colour made as follows:—Take a sufficient quantity of prepared indigo, with verditer blue, and a little spruce ochre or saffron, in such proportions as to make a deep green; grind them together with white

of egg and powdered sugar-candy, or with parchment size; give it a coat of this, and when nearly dry apply the bronze as before.

On the Construction of Assiettes and Pièces Montées.
—To be a proficient in this part requires a general knowledge of the fine arts, particularly the principles of architecture; for without this, however well your piece may be finished with regard to workmanship, it still remains a dull, heavy, unmeaning mass, having no proportion nor a particle of true design in it. I have seen many pieces, and some in the principal shops of London, with these defects, although otherwise well executed. My limits will not allow me to enter into the details necessary to illustrate this part, therefore the artist must refer to books on the subject; but in the absence of these it is best to work from some correct drawing, which, with the few notes I shall subjoin, may serve for general purposes.

There are many prevailing styles or orders of architecture, as the Egyptian, Grecian, Roman, Saxon, Norman, Gothic, &c. The Gothic is the most beautiful, being pointed, and is generally used for cathedrals and churches. The Norman is plain and simple, with semicircular arches. The Saxon is after the same style, into which are introduced some ornamental workings. The Egyptian is more flat and square, embellished with hieroglyphics. In the Grecian and Roman architecture there are five orders, viz., Tuscan, Doric, Ionic, Corinthian, and Composite; and a building may be denominated Ionic, Corinthian, &c., merely from its ornaments. The number of columns, windows, &c., may be the same in either order, but varied in their proportions. The height of the columns in each is,—for the Tuscan, seven times its diameter; Doric, eight; Ionic, nine; Corinthian, ten; Composite, ten. The Tuscan is quite plain, without any ornament whatever; the Doric is dis-

tinguished by the channels and projecting intervals in the frieze, called triglyphs; the Ionic by the ornaments of its capital, which are spiral, and called volutes; the Corinthian by the superior height of its capital, and its being ornamented with leaves, which support very small volutes; the Composite has also a tall capital, with leaves, but is distinguished from the Corinthian by having the large volutes of the Ionic capital. The Grecian and Roman orders differ in some respects as to the style of each, but for particulars refer to works on the subject. These orders are adopted for buildings, with various modifications, in most parts of the world.

The Chinese have a peculiar kind of style, which needs no description, as it is generally represented in this country on our delft ware, &c. The Swiss style, which is something of the Gothic, is very well adapted for pièces montées, as well as the Doric, Ionic, and Corinthian orders, they being more light and elegant.

Of Pièces Montées.—These are in general made to represent buildings of all descriptions, fountains, trophies, vases, cups, helmets, the last being generally mounted on pedestals and filled with flowers, fruit, &c.; also rocks, bridges, fortifications, &c. &c., the building, &c., being generally made with gum-paste, confectioners' or almond pastes. The bodies of rocks may be formed with pieces of rock sugar, cakes, biscuits, &c., of all descriptions, being fixed together with caramel sugar; those not intended to be eaten may be made with papier mâchée and common gum paste; the rocks or bottoms of these are often formed with pieces of cork, flocks, and paper, the surface being afterwards covered with a coating of very thin icing, which is applied with a brush.

To construct your pieces with accuracy, first cut out your intended design in stout paper, in suitable parts

to be put together; then roll out the paste thin on a marble stone; lay your pattern on it, and cut your paste to it with a small sharp pointed knife; let it dry, and fix it together with some dissolved gum, or a little gum paste made rather thin with water. Cut your ornaments or decorations from pasteboards; let them dry a few minutes, and fix them in their proper places. Water may be represented with a piece of looking-glass, and falling water with silver web or spun glass.

Biscuit Paste to imitate Marble Rocks, &c, for Pièces Montées.—Prepare some paste as for Savoy cakes (see p. 129); take one-third of the mixture, and add to it some dissolved chocolate; stir the whole well together, and divide into two equal portions; to one part add some more of the mixture, when you will have a light and dark brown; mix together some prepared cochineal or carmine and infusion of saffron, to make a dark orange, and stir this into another portion of paste; divide it, and add to one part some more of the paste, which will give a light and dark orange; butter or paper a square tin, and put in a spoonful of each coloured paste in rotation, spreading it with the spoon so as it may appear in layers, beginning with the dark colours, and so alternately until the whole is used; or one-half of each may be put into another tin, and mixed all together, so that it may appear in veins; bake it in a moderate oven, and when cold cut it into pieces as it is required, to represent pieces of rock, marble, &c. For variety, the paste may be coloured with spinach green, infusion of saffron, red, and blue, and either put in layers or mixed together as before.

Pâte d'Office, or Confectioners' Paste.—Take one pound and a quarter of fine flour, and ten ounces of loaf sugar sifted through a fine sieve; make a bay, and put in it a sufficient quantity of the yolks or

whites of eggs, or whole eggs, to make it into a moderate stiff paste; work it well, and make it quite smooth; let it remain covered over for a short time, that it may get mellow. If this paste is required white and delicate, use the whites only of the eggs. This is used for the frame-work or building of the *pièces montées*, or for the bottom or foundation on which you build your biscuits, sugar, &c. Roll it out on an even board or marble slab until it is about one-sixth of an inch in thickness, or more, according to the weight it has to bear. Dust your sheet, and roll it on the pin; then lay or roll it over a baking-plate slightly buttered; press out any air-bladders which may be underneath, and prick it with the point of a sharp-pointed knife in a few places; lay on your patterns, cut it out to the desired form, and bake in a moderate oven; or it may be cut out when the paste is half baked, and finish baking it afterwards; or it may be dried in the stove instead of being baked. If it should be blistered when it is taken from the oven, put it immediately on an even board, and place another on it; remove it when it is cold, and it will be quite straight.

This paste may be made with the addition of half an ounce of dissolved gum-dragon, pounding it well in a mortar, and using less eggs. Each of these may be coloured to any desired tint, when it should be dried in a stove instead of being baked. Fix the parts together, when finished, with some of the same paste made thin with dissolved gum, or with caramel sugar; ornament it with spun sugar, or with coloured sugar-sands. (See Coloured Sugar.)

From this paste, or almond paste, may be made cottages, temples, fountains, pyramids, castles, bridges, hermits' cells, vases, or any other required forms, which are to be made in different pieces and put together afterwards, or formed in moulds, and either baked or dried in the stove.

Assiettes Montées, or dressed plates.—These are composed of pieces of wire of different sizes to suit the dimensions of the piece, which is bound round with silver or tissue paper, and fastened with paste. These wires, after they are fashioned to the desired figure, are fixed with binding wire, and the whole is finished with stout Bristol-board or card paper, ornamented gold borders and papers, and decorated with gum paste. They are placed in the centre of the table, with bon-bons, &c.

On Modelling.—This art is most important to the confectioner. It is not so difficult to accomplish as is generally supposed; it only requires patience and perseverance, with a close attention to the proportions and orders of nature. A few modelling tools, and facility in handling the paste, is all that is requisite to become an expert modeller. The form of the body must first be made with the fingers, the more minute parts with the tools and a pair of scissors; the last is very useful for dividing the fingers on the hands and the toes of a human figure. The proportions necessary to form it are these:—the whole length of a human being is six times the length of his foot, eight times of his head (that is, from the crown to the chin), ten times of his face, or the distance from the crown to the mouth; the thumb is as long as the nose or the biggest joint of the middle finger; the fore finger is shorter than the third, and the little finger is shorter than the third by one joint; the width of the wrist is as long as the thumb, and about a quarter; this varies; the ear is also the length of the nose, its breadth half its length; the arm is three times the length of the head, or four faces; the leg, from the knee-joint to the bottom of the foot, measures two heads and a-half; the foot, which is one-sixth of the human stature, if divided into three parts, will contain first the toes from the top of the large one to the lowest joint of the little one; next

the middle of the foot, and lastly the heel and instep. There is also a slight difference between the proportions of a male and female. In infancy and very early youth the form is very much alike in both sexes. The head is oval, very much extended backwards, with the forehead and top of the head comparatively flat; the jaw-bones are short and have little depth; the bones of the nose are short and flat; in the male subject, the elevation of the frontal sinuses at the eyebrows, which characterizes the male head, is wanting; and the neck is very small in proportion to the head. In old age the cheeks and mouth fall in, because of the wasting of the teeth; the nose and chin approach each other; the fat is absorbed, and the muscles shrink, which covers the surface with wrinkles; and in time, the bones too are wasted, and the figure bends beneath its own weight. With these divisions proceed to model the human figure, referring to anatomical plates for the position of the muscles, &c. When the figure is complete, proceed to dress it in any style or costume you may fancy, making it from the same paste, and colouring it, giving the figure any attitude you may think proper, but always prefer the graceful, avoiding the stiff and awkward. The modelling of animals and birds is on the same principle, the wings of the latter being pushed or cut in moulds or pasteboards. Flowers are mostly done with cutters in the form of the leaf of the flowers you would wish to represent; form the calyx in a mould, and fasten it on a piece of wire; fix the leaves on the calyx to imitate nature, and colour them accordingly.

Modelling Tools.—No. 1 is termed the rose-stick, the thin flat end being used for forming the leaves of roses out of modelling wax by flattening a piece of it on a table until it is of the required form and size; the other end is used for fluting and making borders.



1.



2.



3.



4.

No. 2 is by some termed a foot tool, being used for forming the edges and borders to wax baskets, the circular end being necessary for working underneath any part, or circular mouldings, and also for the paws of animals.

No. 3. The curved thin end is used as a cutting tool, and for the formation of leaves; and the opposite end for fluting.

No. 4 serves as a gouge, and is used in the formation of leaves for flowers.

The curves of each tool are also requisite for different purposes in modelling, and for forming the raised and depressed parts in the human figure, animals, &c. They should be made of beech, as it relieves better when used about fat or modelling wax. There are many others, but these will be found quite sufficient for most purposes, with the dotting or pointing tool, which a common skewer, or a piece of round pointed stick will supply its place. The tool usually made for this purpose has a concave or semi-circular hollow at the thick end, for making beading, or else with a flat round end, similar to a tambour needle; the last being used for working up the leaves of roses, &c., in the hollow of the hand, when they are made of gum paste.

Modelling Wax.—This is made with white wax, which is melted and mixed with lard to make it malleable. In working it, the tools and the board or stone are moistened with water to prevent its adhering; it may be coloured to any desired tint with dry colour.

SECT. XXII.—ON COLOURS.

MANY of the colours prepared for use in this art come more properly under the denomination of dyes, alum and cream of tartar being used as a mordant; and

many of them are prepared in the same manner as for dyeing. One of the principal colours requisite for the confectioner's use is coccinella, or cochineal. The sorts generally sold are the black, silver, foxy, and the granille. The insect is of two species, the fine and the wild cochineal; the fine differs from the wild in size, and is also covered with a white mealy powder. The best is of a deep mulberry colour, with a white powder between the wrinkles, and a bright red within. A great deal of adulteration is practised with this article, both at home and abroad; it is on this account that persons prefer the silver grain, because it cannot be so well sophisticated. Good cochineal should be heavy, dry, and more or less of a silvery colour, and without smell.

To prepare Cochineal.—Pound an ounce of cochineal quite fine, and put it into a pint of river water with a little potash or soda, and let it boil; then add about a quarter of an ounce of powdered alum, the same of cream of tartar, and boil it for ten minutes; if it is required for keeping, add two or three ounces of powdered loaf sugar.

Carmine.—Reduce one ounce of cochineal to a fine powder, add to it six quarts of clear rain or filtered water, or prepared water, as for cochineal. Put this into a large tin saucepan, or a copper one tinned, and let it boil for three minutes, then add twenty-five grains of alum, and let it boil two minutes longer; take it off the fire to cool; when it is blood warm pour off the clear liquor into shallow vessels, and put them by to settle for two days, covering them with paper to keep out the dust. In case the carmine has not separated properly, add a few drops of a solution of tin, which is tin dissolved in muriatic acid or a solution of green vitriol, or the following may be substituted:—one ounce and a half of spirit of nitre, three scruples of sal ammoniac, three scruples of tin dis-

solved in a bottle, and use a few drops as required. When the carmine has settled, decant off the clear, which is liquid rouge. The first sediment is Florence lake, which remove, and dry the carmine for use. This preparation is by far superior to the first, for in this the same colour is obtained as before, which is the liquid rouge, the other and more expensive parts being invariably thrown away. The carmine may be obtained by the first process, as can be seen if the whole is poured into a clear bottle and allowed to settle, when the carmine will be deposited in a layer of bright red near the bottom. It produces about half an ounce of carmine, which is worth from four to six shillings.

Yellow.—Infuse saffron in warm water, and use it for colouring anything that is eatable. The English hay-saffron is the best; it is taken from the tops of the pistils of the crocus flower; it is frequently adulterated with the flowers of marygolds or safflower, which is known as the bastard saffron, and is pressed into thin cakes with oil. Good saffron has a strong agreeable odour, and an aromatic taste. Gum paste and other articles which are not eaten may be coloured with gamboge dissolved in warm water.

Blue.—A beautiful colour may be obtained from indigo: it is seldom used in confectionary, as it always gives a dead muddy colour unless it is dissolved; the method of preparing it is considered a great secret by some, but it is well known to dyers. Chaptal, in his chemistry, explains the principle. "The blue colour is formed in dead vegetables only by fermentation. Now in these cases there is a fixation of oxygen. This oxygen combines with the fecula in indigo, with an extractive principle in turnsole, &c.; and most colours are likewise susceptible of being turned into red by a greater quantity of oxygen. Thus it is that turnsole reddens by expo-

sure to air or to the action of acids; because the acid is decomposed upon the mucilage, which is the receptacle of the colour. Hence it is that indigo does not become red by acids, but is on the contrary soluble in them. It is likewise for the same reason that we observe a red colour developed in vegetables in which an acid continually acts, as in the leaves of the oxalis, of the virgin and ordinary vine, and the common sorrel. Hence also it happens that acids brighten most of the red colours, and that a very high charged metallic oxide is used as the mordant for scarlet." This extract demonstrates why it is that the carmine is directed to be prepared in a tinned vessel, and a solution of tin being used to precipitate it.

Indigo is dissolved with oil of vitriol. One pound of this acid is requisite for a quarter of a pound of indigo; it should be pounded fine before it is added, and prepared in a vessel capable of containing double the quantity, or it will effervesce over.

"Bergman mixed one part of indigo, well pulverized, with eight parts of colourless sulphuric acid of specific gravity 1.90. The glass bottle in which the mixture was made was slightly corked. The acid speedily attacked the indigo and excited a great heat. After twenty four hours the indigo was dissolved, but the mixture was opaque and black. On adding water it cleared up, exhibiting all the shades of blue, according to the quantity of water.

"The fixed alkalies, saturated with carbonic acid, separate from the solution of indigo a very fine blue powder, which is very slowly deposited. Bergman distinguishes this blue by the name of precipitated indigo. It is also obtained by pouring drop by drop the alcoholic solution into saturated solution of alum, of sulphate of soda, or of some other salts which contain carbonic acid."

Precipitate the solution with muriate of potash, sulphuret of potash or soda, line the inside of a funnel with blotting paper, and put it in a bottle or jar, pour on the precipitated indigo, and wash out the acid by passing filtered or distilled water through it; if any of the colour passes through in the last washing, precipitate it as before; it may be either dried or kept in water for use.

Prussian Blue may be used instead of indigo, if preferred, but must be used sparingly, as it contains prussic acid; it is prepared from blood, hoofs, &c., of animals, being burnt with potash, and combined with a solution of iron.

Sap Green.—This is prepared from the fruit of the buckthorn, and is purgative.

Spinach Green.—This is perfectly harmless, and will answer most purposes. Wash and drain a sufficient quantity of spinach, pound it well in a mortar, and squeeze the pounded leaves in a coarse cloth to extract all the juice; put it in a pan and set it on a good fire, and stir it occasionally until it curdles, which will be when it is at the boiling point; then take it off and strain off the water with a fine sieve; the residue left is the green; dry it and rub it through a lawn sieve. This is only fit for opaque bodies, such as ices, creams, or syrups.

Another green is made with a mixture of saffron or gamboge, and prepared indigo; the lighter the green the more yellow must be used.

Vermilion and Cinnabar are preparations of mercury, and should never be used; they are of a lively red colour, but carmine will answer most purposes instead.

Bole Ammoniac.—There is also the French and German bole. These earths are of a pale red, and possess alexipharmic qualities; they are frequently used in confectionary for painting and gilding.

Umber.—This is of a blackish brown colour; it is an earth found near Cologne.

Bistre.—This is an excellent light brown colour prepared from wood soot.

These browns are harmless, but sugar may be substituted for them to any shade required by continuing the boiling after it has passed the degree of caramel until it is burnt, when it gives a black brown, but water may be mixed with it so as to lessen the shades. Dissolved chocolate may also be substituted in some cases for the brown colours.

Black.—Blue black is powdered charcoal, or ivory black, which is obtained from the smoke of burnt ivory; but bone black is generally substituted instead; either of these may be used, but are only required for painting gum paste, except in one or two cases, one of which is to colour the common sweetmeats known in London as black jack; for this blue black is used.

Obtain any of these colours in fine powder, and mix them with some dissolved gum Arabic, a little water, and a pinch of powdered sugar candy; mix them to the required consistence for painting. For sugars they must be used in a liquid state, and be added before it has attained the proper degree; it may also be used in the same manner for ices, creams, &c., and for icings it can be used either way.

THE SHADES PRODUCED BY A MIXTURE OF COLOURS.

Purple.—Mix carmine or cochineal, and a small portion of indigo.

Lilac.—The same, making the blue predominate.

Orange.—Yellow, with a portion of red.

Gold.—The same, but the yellow must be more in excess.

Lemon.—Use a solution of saffron.

Green.—Blue and yellow.

SECT. XXIII.—THE OVEN.

Cakes.—Rich pound-cake, Twelfth, or bride-cakes. The following table will give the ingredients necessary for cakes of different prices; it is used by a very old-established house in London:—

INGREDIENTS.	10s. 6d.	12s.	15s.	18s.	£1 1s.	£1 11s.	£2 2s.
	lb. oz.	lb. oz.	lb. oz.	lb. oz.	lb. oz.	lb. oz.	lb. oz.
Butter	0 11	0 13	1 1	1 4	1 6	2 1	2 12
Sugar	0 7	0 8	0 10	0 12	1 0	1 6	1 12
Currants.....	1 4	1 6	1 10	2 0	2 8	3 12	5 0
Orange, lemon, and citron (mixed)..	0 6	0 7	0 8	0 10	0 12	1 2	1 8
Almonds	0 1½	0 2	0 2	0 3	0 3	0 4	0 6
Mixed spice*.....	0 0½	..	0 0¾	..	0 1	0 1½	0 2
Flour	0 11	0 13	1 1	1 4	1 6	2 1	2 12
Eggs (number) ...	6	7	9	10	12	18	24
Brandy, or brandy and wine	Wine	glass	full.	..	¼ pt.	..	½ pt.

these proportions allow for the cake being iced. If more sugar is preferred, the quantity must be the same as the butter; but less is used in this instance, that the cake may be light, and also to allow for the fruit, which would make it too sweet. Double the quantity of almonds may be used if required, as some persons prefer more.

Warm a smooth pan, large enough for the mixture; put in the butter, and reduce it to a fine cream, by working it about the pan with your hand. In summer the pan need not be warmed, as it can be reduced to a cream without; but in winter keep the mixture as warm as possible, without oiling the butter. Add the sugar and mix it well with the butter, until it becomes white and

* Nutmegs, mace, and cinnamon, of each equal parts, in powder.

feels light in the hand. Break in two or three eggs at a time, and work the mixture well, before any more is added. Continue doing this until they are all used and it becomes light; then add the spirit, currants, peel, spice, and almonds, some or most of these being previously cut in thin slices, the peel having also been cut into small thin strips and bits. When these are incorporated, mix in the flour lightly: put it in a hoop with paper over the bottom and round the sides, and placed on a baking-plate. Large cakes require three or four pieces of stiff paper round the sides; and if the cake is very large, a pipe or funnel, made either of stiff paper or tin, and well buttered, should be put in the centre, and the mixture placed round it; this is to allow the middle of the cake to be well baked, otherwise the edge would be burnt two or three inches deep before it could be properly done. Place the tin plates containing the cake on another, the surface of which is covered an inch or two thick with sawdust or fine ashes to protect the bottom. Bake it in an oven at a moderate heat. The time required to bake it will depend on the state of the oven and the size of the cake. A guinea cake in an oven of a proper heat will take from four to five hours. When the cake is cold, proceed to ice it. (See Icings for Cakes.) Wedding-cakes have generally, first, a coating on the top of almond icing; when this is dry, the sides and top are covered with royal or white icing. Fix on any gum paste or other ornaments whilst it is wet; and when dry, ornament it with piping, orange-blossoms, ribbon, &c.; the surface and sides are often covered with small knobs of white sugar candy whilst the icing is wet.

Twelfth-cakes are iced with white or coloured icing, and decorated with gum paste, plaster ornaments, piping-paste, rings, knots, and fancy papers, &c., and piped.

Savoy Cakes (hot mixture).—One pound of loaf-

sugar, powdered, 1 pint of good eggs, and 14 ounces of flour. Warm a pan, free from grease, with the sugar in it in the oven until you can scarcely bear your hand against it; then take it out and pour in the eggs: whisk the whole together with a birch or wire whisk until it is quite light and cold, when it will be white and thick. If it should not whisk up well, warm it again and beat it as before; or it may be beat over the stove fire until it is of the warmth of new milk. When it is finished, sift the flour and stir it in lightly with a spoon, adding a few drops of essence of lemon to flavour it. Butter some tin or copper moulds regularly, so that there is not more on one place than another, nor too thick either, with rather less on the top of the mould than the sides. Dust it with loaf-sugar sifted through a lawn sieve. Knock out all that does not adhere, and again dust it with fine flour; turn it out and knock the mould on the board as before. Tie or pin a piece of buttered paper round the mould, so as to come two or three inches above the bottom. Fix the mould in a stand and nearly fill it. Bake in a moderate oven. When done, the top should be firm and dry. Try it by pushing in a small piece of stick or whisk, and if it comes out dry, it is done. The surface of the cake should be quite smooth. There is as much art in buttering the mould properly as in preparing the mixture, if not more.

Cold Mixtures.—Separate the yolks from the whites when you break the eggs. Put the yolks into a clean pan with the sugar, and the whites in another by themselves. Let the pans be quite free from grease. If they are rubbed round with a little flour, it will take off any which may be left about them. Wipe them out with a clean cloth. Beat up the yolks and sugar by themselves, with a wooden spoon, and afterwards whip up the whites to a very strong froth. If they should happen to be rather weak, a bit of powdered alum may be added. When the whites are whisked up firm, stir in the yolks

and sugar. Sift the flour and mix it in lightly with the spatula, adding a little essence of lemon to flavour it. Fill the moulds and bake as before. When cakes are made in this way, the eggs should be quite fresh and good, otherwise the whites cannot be whipped up. When weak, pickled eggs are used. I find a good method is to beat the eggs first by themselves, over a fire, until they are warm; then add the sugar, and whip it over the fire until it is again warm, or make as for hot mixtures, and heat it twice.

Almond Savoy Cakes and Almond Hearts.—One pound of blanched sweet almonds (four ounces of them may be bitter), two pounds of sugar, one pint of the yolks of eggs, half a pint of whole eggs, one pound of flour, and the whites of twelve eggs beat to a firm froth.

Pound the almonds with the sugar in a mortar, and sift them through a wire sieve, or grind them in a mill, and mix them with the sugar in the mortar. First mix the whole eggs well with the almonds and sugar, then add the yolks by degrees, stirring the whole until quite light; then mix in the whites, and afterwards the flour lightly; prepare some moulds as for Savoy cakes; but some only butter them. Fill the moulds three parts full and bake them in a moderate oven. For almond hearts, butter some tins in the shape of a heart, but without bottoms; cover a baking-plate with paper; place the tins on it, and fill them nearly three parts full with the mixture: dust a little sugar on the top, and bake them in a moderate oven.

Venice Cake.—Take a Savoy cake and cut it in slices, half or three-quarters of an inch thick, in a parallel direction from the bottom to the top; spread over each slice with raspberry or apricot jam, or some of each alternately, or any other sort of preserve. Replace each piece in its original form; when completed, make an icing as directed for cakes, with four whites

of eggs to a pound of sugar, which will make it rather thin. It may be coloured with cochineal, &c.; spread it over the cake, which, being thin, will run into the flutes and mouldings of the cake, when it will appear of the same form as before. Let it dry in the mouth of the oven, but be careful it does not get discoloured. When it is dry, ornament it with piping. Savoy cakes are often done in the same manner, without being cut in slices, to ornament them; or they may be done without icing, and either piped or ornamented with gum paste borders, &c., which are fixed on with dissolved gum-Arabic. Volutes or high and projecting figures are supported with pieces of small wire.

Savoy Cake to represent a Melon.—Bake a cake in a melon-mould; when cold, cover it with icing as for a Venice cake. Whilst it is wet, stick on some pieces of loaf-sugar, to imitate the surface of the melon. Strew over it some yellow and green sugar-sands; or paint it when dry to imitate nature. Form the stalk, and leaves, out of gum-paste, and fix them in the centre, on the top.

Savoy Cake to imitate a Hedgehog.—Bake a cake in a mould of that form; blanch some Valentia or Jordan almonds; cut them into small fillets and stick them over the surface, to form the quills or prickles of the hog. Put in two currants for the eyes.

Bordeaux or Parisian Cakes.—Make a mixture as for pound-cakes, leaving out the fruit, peel, spices, &c.; bake it in a round or oval hoop. When baked and cold, cut it into slices, half an inch thick: spread each slice over with jam or marmalade. The outside of the cake may be cut round, or fluted to form a star; and the centre of the cake is occasionally cut out to about an inch and a half from the edge, leaving the bottom slice whole: this may be filled with preserved wet or dry fruits, creams, or a trifle. The top is ornamented with piping, wet or dry fruits, and peels, or piped with jam and icing.

Italian Bread.—One pound of butter, one pound

of powdered loaf-sugar, one pound two ounces of flour, twelve eggs, half a pound of citron, and lemon-peel. Mix as for pound-cake. If the mixture begins to eurdle, which it is most likely to do from the quantity of eggs, add a little of the flour. When the eggs are all used, and it is light, stir in the remainder of the flour lightly. Bake it in long, narrow tins, either papered or buttered: first put in a layer of the mixture, and cover it with the peel cut in large thin slices; proceed in this way until it is three parts full, and bake it in a moderate oven.

Rice Pound-cake.—One pound of butter, one pound of powdered loaf-sugar, twelve ounces of flour, half a pound of ground rice, and twelve eggs. Mix as Italian bread, and bake it in a papered hoop. If it is required with fruit, put two pounds of currants, three-quarters of a pound of peel, one nutmeg, grated, and a little pounded mace.

Wafers.—Four ounces of sugar, four ounces of butter, eight ounces of flour, the yolk or white of one egg, and half a tea-cupful of milk or water. Melt the butter in the water; mix the egg, sugar, and flour together, adding, by degrees, the melted butter and water; or, instead of the butter, it may be made into a thin batter with cream, and a little orange-flour water, or any other essence, to flavour it. The mixture may be coloured. Make the wafer-tongs hot over the hole of a stove or clear fire. Rub the inside surfaces with butter or oil, put in a spoonful of the batter, and close the tongs immediately; put them on the fire, turning them occasionally until the wafer is done, which a little practice will soon enable you to ascertain; roll the wafers on a small round stick, stand them on their ends in a sieve, and put them in the stove to dry; serve them with ices.

SECT. XXIV.—DISTILLATION.

THIS art is of great importance to a confectioner, as it enables him to make his own oils, waters, and spirits for liqueurs and ratafias, instead of purchasing at a high rate those vile adulterations which are often sold.

The still or apparatus for distilling consists of a eueurbit, which is a copper pot or boiler, and contains the wash, dregs, or infusions to be distilled. A cover, with a large tapering neck or pipe in the centre, is fixed on, and a continuation of small pipe, made either of tin or pewter, of several feet in length, is bent into a spiral form, and termed the worm. This is placed in a tub containing water, which is fastened on to the end of the neck. The joints or ereviees are luted, to prevent evaporation, with a paste made of linseed meal, or equal portions of slacked lime or whitening, flour and salt, moistened with water, and spread on rags or pieces of bladder, when it is applied to the joints and creviees. The water in the tub where the worm is should be kept quite cold, except in distilling oil of anise-seeds; and for this purpose a tap or cock should be placed about half-way down the tub, that the top of the water may be drawn off when it is warm. Again fill it with cold water, and keep coarse cloths dipped in cold water to put round the alembic or still in case it should boil too fast. It is by these means that the steam or vapour which rises with the heat is condensed, and runs out at the end of the pipe in a small stream. If the operation is well conducted, it should never exceed this. When the phlegm arises, which is a watery insipid liquor, the receiver must be withdrawn, for if a drop of it should run in, it must be cohobated, that is, re-distilled, as it will thicken the spirit and spoil the taste.

The still should not be filled above three parts full, to prevent it rising over the neck, should it happen

to boil violently, as in this case it would spoil what is already drawn, which must be re-distilled.

ON ESSENTIAL OILS.

To obtain these from plants or peels, the articles should be infused for two or three days, or even longer, in a sufficient quantity of cold water, until it has fully penetrated the pores of the materials. For this purpose roots should be cut into thin slices, barks reduced to a coarse powder, and seeds slightly bruised; those of soft and loose texture require to be infused two or three days, the harder and more compact a week or two, whilst some tender herbs and plants require to be distilled directly. After the solvent has fully penetrated, distil it with an open fire; that is, a fire under the still like a common washing copper, which immediately strikes the bottom. Regulate the fire so as to make it boil as speedily as possible, and that the oil may continue to distil freely during the whole process; for the longer it is submitted to an unnecessary heat without boiling, a greater portion of the oil is mixed with the water than there would otherwise be. The oil comes over with the water, and either sinks to the bottom or swims on the top, according as it is lighter or heavier than that fluid. What comes over at first is more fragrant than that towards the end, which is thicker, and should be re-distilled by a gentle heat, when it leaves a resinous matter behind.

All essential oils, after they are distilled, should be suffered to stand some days in open bottles or vessels, loosely covered with paper to keep out the dust, until they have lost their disagreeable fiery odour, and become quite limpid: put them into small bottles, and keep them quite full in a cold place. The light oils pass over the swan neck of the common still, but the heavier ones will not so readily, therefore a large low head is pre-

ferable ; the heavier oils are those from cloves, allspice, cinnamon, &c., or such as contain a portion of resin.

Some plants yield three times as much oil, if gathered when the flowers begin to fall off,—as lavender ; others when young, before they have sent forth any flowers,—as sage ; and others when the flowers begin to appear,—as thyme.

All fragrant herbs yield a larger portion of oil when produced in dry soils and warm summers. Herbs and flowers give out a larger quantity of oil after they have been partly dried in a dry shady place. Four pounds of the leaves of dried mint yield one ounce of oil, but six pounds of fresh leaves only three drachms and a-half. This oil is more fine and bright when rectified, that is, re-distilled.

After the distillation of one oil, the worm should be carefully cleansed, by passing a little spirit of wine through it, before another is proceeded with.

A great quantity of oil is wasted by confectioners when they preserve their lemon and orange peels by boiling them in open vessels instead of a still ; what is saved by this means alone would soon repay the expense of the apparatus.

DISTILLED WATERS.

These are obtained in a similar manner to the oils, with a high narrow-necked still, and differ from them by the oil being retained or united with the water. Plants for this purpose should be gathered fresh on a dry day, as the water drawn from them in this state is more aromatic when they are dry ; for the oil is mixed with an aqueous fluid in the plant, which concretes and separates in drying.

Herbs should be bruised and steeped for a day in about three times their quantity of water when green, but considerably more when dry ; but at all times

sufficient water should be added that some may be left to prevent the herbs or flowers being burnt to the bottom of the still. After all the water is drawn, the distillation should continue so long as any taste or smell of the ingredients comes over; and the fire should be so regulated that the water may run in a small continued stream.

If a superior article is required, it must be re-distilled by a gentle heat, with the addition of a little pure spirit (about one-twentieth part) which has not got any bad smell.

Orange-Flower Water.—The leaves of orange flowers three pounds, water three pints.

Rose Water.—As orange flower, using either the damask or pale single rose. Neither the purgative quality of the damask, nor the astringent quality of red roses, rises in distillation, but is contained in the water left in the still.

Cinnamon Water.—Cinnamon one pound, water two gallons. Bruise or break the spice, and infuse it in water for two days. Some consider it sufficient to simmer the spice in the still for half an hour, putting back what comes over, and filtering the whole when cold through a flannel bag or blotting paper.

Peppermint Water.—Dried herb one pound and a half, or green herb three pounds, to a gallon of water.

Lemon-Peel Water.—Two pounds of fresh peel to the gallon.

Black-Cherry Water.—Twelve pounds of ripe fruit to a gallon of water. Bruise the fruit in a mortar so as to break the stones, that the flavour of the kernel may be obtained.

Angelica, star anise-seed, carraway, lavender, rosemary, myrtle, vanilla, raspberry, strawberry, and all other waters, are made in the same manner; the first half of the water which comes over is the best and strongest.

SPIRITS FOR LIQUEURS.

Spirits and alcohol are obtained by the distillation of fermented articles. The peculiar taste of each depends on the essential oil of the article from which it is prepared being held in solution: therefore, by knowing the nature of its oil, alcohol may be made to imitate any desired spirit. A few drops of nitric ether added to malt spirit will impart to it the flavour of cognac brandy; and two scruples of benzoic acid, mixed with one quart of rum, will give it the taste of arrack. Brandy is generally recommended for the use of the confectioner in making spirits for liqueurs, but a superior article may be made with less expense from rectified spirits of wine, or pure spirit which has neither taste nor smell, as the spirit afterwards drawn will only have the flavour of the articles with which it is required to be impregnated. Rectified spirits may be obtained from the dregs of beer, cider, ale or wine, suitable for any purpose, as well as from brandy.

Spirits rise in the still with less heat than watery infusions, therefore it is best to distil by means of the bain-marie, that is, by the still being placed in another vessel containing water. This method is more safe, as it prevents accidents, and the articles from being burnt.

Common spirits may be deprived of their impurities by mixing them with an equal quantity of water, and distilling them by a gentle heat, or in a water bath. Continue the operation until the phlegm arises, which will appear milky and is of a nauseous taste. A great quantity of the oil which it retained will remain in the water. If the spirit was very impure, a second rectification may be necessary, as before. A very pure and tasteless spirit may be obtained by mixing with the spirit, after rectification, one-fourth of its weight of pure dry salt of wormwood or tartar. Let it stand a little time in a *gentle heat*, and distil in the bain-marie. A small por-

tion of alum being added, prevents any of the salt being brought over with the spirit. The result is pure alcohol. It may be reduced to proof spirit by mixing twenty ounces of alcohol with seventeen of water, by weight.

According to the excise laws, a gallon of proof spirit should weigh seven pounds, eleven ounces, three drachms avoirdupois; and a gallon of water eight pounds, seven ounces, five drachms. Spirit, when it is said to be one in three or one in four over proof, signifies that one gallon of water must be added to three or four of spirit, to bring it to proof. And one in three under proof, means that one gallon of water is added too much, so that there is only two gallons of proof spirit.

Distilled Spirituous Waters for Liqueurs.—Orange, rose, pink, jessamine, and all other flowers, are made by adding eight pounds of the leaves or petals of the flowers to a gallon of pure proof spirit. Put them in a cold cellar or ice-house to infuse for a week. Distil in the bain-marie to dryness. If they are distilled on an open gentle fire, water should be added to the articles when they are put on the fire, so as to prevent their being burnt.

Lavender, mint, rosemary, angelica, the yellow rind of lemon and orange peels, and bergamot, lemon, vanilla, ginger, and orris-root for violet, and other herbs, are made by adding two pounds of the plant, &c., partly dried, to a gallon of pure proof spirit. Let it steep in a jar close covered for twelve or fourteen days in a cool place, and distil in the bain-marie. Myrtle and balm-*melissæ*, one pound to the gallon. If any of the waters appear rather turbid when they are first drawn, they will become clear and bright by standing a few days. Filter them through blotting paper placed in a glass or earthen ware funnel over a bottle to receive them.

Strawberries, raspberries, &c., sixteen pounds to the gallon.

Cinnamon, coriander, carraways, cloves, &c, are made by adding one pound of the bruised seed or spice to the gallon of proof spirit. Cardamoms four ounces, nutmegs and mace three ounces to the gallon.

Hungary Water, or Aqua Reginæ.—Fresh gathered rosemary flowers in full bloom, four pounds to the gallon of pure proof spirit. It may also be made with the addition of one pound of each of marjoram and lavender flowers, and two quarts more spirit. Distil immediately. Half a pound of sage leaves, and two ounces of ginger, are recommended as an excellent addition by foreign writers.

Maraschino de Zara.—Morello cherries nine pounds, black wild cherries seven pounds, or sixteen pounds of Morello cherries*, one pint and a-quarter of Kirchenwasser, spirit of roses one ounce and a-half, spirit of orange flowers one ounce and a-half, of jessamine, a quarter of an ounce, peach or cherry-leaves, one pound and a-quarter; pick the stalks from the cherries and press out their juice, pound the stones and skins with the leaves in a mortar, and steep all together for a fortnight, some only filter the infusion, and add to it four pounds and a-half of treble refined sugar; dissolve and strain through a jelly-bag; but a superior spirit may be obtained by the addition of four quarts of rectified proof spirit; distil with the bain-marie, and rectify.

Kirchenwasser.—Get some small black cherries and a few Morello cherries quite ripe, take off their stalks and put them in a cask with the head off, cover the top or surface of the cherries with mortar or wood ashes mixed to a consistence with water, let them stand for six weeks or two months, during which time they

* Genuine Maraschino is the spirit of Morello cherries, as Kirchenwasser is of black cherries. Maraschino may also be made from gooseberries. Ripe gooseberries 102 pounds; black cherry-leaves, bruised 12 pounds; ferment as Kirchenwasser; distil and rectify it.

will ferment, then take off the covering and distil them.

Eau Divine.—Essence of bergamot and lemon, of each one drachm, rectified spirit one gallon, fresh balm leaves two ounces; distil with the bain marie; add orange-flower water five ounces. The liqueur is made by adding to this four pounds of treble refined sugar dissolved in two gallons of water.

Eau de Cologne.—Spirit of rosemary two quarts, essence of bergamot four ounces, balm water two quarts, essence of cédrats and citrons four ounces, neroli two drachms, rosemary two ounces, spirits of wine ten quarts; draw fourteen quarts.

Balm water two pints and a-quarter, spirit of rosemary three pounds and a-half, oil of rosemary one drachm, essence of lemon three drachms, of cédrats two drachms, of neroli two drachms and a-half, of bergamot three drachms, rectified spirit twelve pounds, distil in the bain-marie, and keep in a cool place for some time.

Curaçao.—This is a species of wild or bitter orange; the dried peel may be obtained from the chemists; the yellow peel of Seville oranges, dried and powdered, will answer as well; use one pound to the gallon of rum or rectified spirit, and distil as the others.

Eau de Mélisse des Carmes.—Spirit of balm eight pints, spirit of lemon and citron four pints; spirit of nutmegs, musk, and coriander, of each two pints, spirit of thyme, cinnamon, anise-seed, marjoram, hyssop, green verdigris, or the vitriol of iron, sage, angelica-root, and cloves, of each one pint; distil, and keep in an ice-house for twelve months. Supposed to be the original recipe of the barefooted Carmelites, now in possession of the Company of Apothecaries of Paris.

The English Method.—Fresh balm leaves four ounces, fresh lemon-peel two ounces (the yellow rind), coriander seeds and nutmegs, of each one ounce

angelica-root, cinnamon, and cloves, of each half an ounce, rectified spirit two pounds, brandy two pounds powder the dry ingredients, and steep the whole in a close vessel with the spirit for four or five days. Two pints of rectified spirit and one pint of balm-water may be used instead of the spirit and brandy; distil in the bain-marie nearly to dryness; re-distil and keep it for some time in a cold cellar or ice-house. This is an elegant and beautiful cordial.

Spirit of Coffee.—One pound of the best Mocha coffee, fresh roasted and ground, add to it one gallon of rectified proof spirit, let it infuse for a week, and distil in the bain-marie.

Spirit of bitter Almonds.—One pound of blanched almonds, one gallon of proof spirit; pound the almonds quite fine with a little water, to prevent their oiling, add them to the spirit with an ounce of bruised angelica-root, steep for a week, and distil in the bain-marie.

Spirit of Tea.—Four ounces of the best tea to a gallon of rectified proof spirit, pour a little cold water on the tea and let it infuse for three or four hours, add it to the spirit, and distil it in a week.

Escubac—Usquebaugh.—Saffron one ounce, catechu three ounces, ambergris half a grain, dates without their kernels, and raisins, each three ounces, jujubes six ounces, anise-seed, cloves, mace, and coriander seed one drachm, cinnamon two drachms, proof spirit six quarts, pound the ingredients, infuse for a week and distil. The whole of these spirituous distilled waters are for making liqueurs and for flavouring ices, liqueurs, bon-bons, drops, &c., or anything in which liqueurs are introduced.

LIQUEURS.

These are made by mixing equal portions of any of the spirits, water, and sugar together, that is, one

pint of spirit, one pint of water, one pound of the treble-refined sugar; dissolve the sugar in the water, add it to the spirit, and filter through blotting-paper; being perfectly clear and colourless when drawn, they require to be coloured of the same tint as the articles from which they were extracted, and for this purpose none but those which are perfectly harmless should be employed, as prepared cochineal, infusion of saffron, burnt sugars or indigo.

RATAFIAS.

These are liqueurs made by the infusion of the ingredients in spirits, and are similarly composed to the spirituous waters, but instead of being distilled they are simply filtered, and sugar is added to them.

Ratafia de Café.—Fresh roasted Mocha coffee ground, one pound, proof spirit one gallon, loaf sugar one pound and a half; infuse for a week, stirring it every other day, filter, bottle and cork close.

Ratafia de Cacao.—Cacao of Caracca one pound, West Indian cocoa nuts eight ounces, proof spirit one gallon, roast the nuts and bruise them, add them to the spirit and infuse for fourteen days, stirring them occasionally, filter and add thirty drops of essence of vanilla and two pounds of sugar.

Ratafia des Noyaux.—Half a pound of bitter almonds, half a pound of sweet almonds, proof spirit one gallon, (peach or apricot kernels may be used instead of the bitter almonds), three pounds of loaf sugar; beat the almonds fine with part of the sugar, steep the whole together for twelve or fourteen days, and filter; this liqueur will be much improved if rectified spirit is reduced to proof with the juice of apricots or peaches.

Ratafia of Cherries.—Morello cherries eight pounds, black cherries eight pounds, raspberries and red or white currants of each two pounds, coriander-seeds

three ounces, cinnamon half an ounce, mace half an ounce, proof spirit one gallon; press out the juice from the fruit, take one-half of the stones of the cherries and pound them with the spices, add two pounds and a half of sugar, steep for a month and filter.

Ratafia des Cassis.—Ripe black currants six pounds, cloves half a drachm, cinnamon one drachm, black currant leaves one pound and a-half, Morello cherries two pounds, sugar five pounds, proof spirit eight quarts; bruise the spice, infuse a fortnight, filter, and bottle.

Ratafia of Raspberries.—Raspberries quite ripe eight pounds, proof spirit one gallon, quarter of an ounce of cinnamon and cloves, steep for fourteen days, stirring it occasionally. Currants and strawberries are made the same.

Ratafia des Fleurs des Oranges.—Fresh orange-flowers two pounds, proof spirit one gallon, sugar two pounds; infuse for eight or ten hours.

Ratafia d'Œillets.—The petals of clove pinks, with the white parts pulled off, four pounds, cinnamon and cloves twenty-five grains, proof spirit one gallon, sugar three pounds. Infuse for a month, filter, and bottle.

Ratafia d'Angelique.—Angelica seeds one ounce, angelica stalks four ounces, bitter almonds four ounces, one drachm each of cinnamon and cloves, proof spirit six quarts, loaf sugar four pounds. Blanch and pound the almonds with some of the sugar, or a little water, pound the other ingredients a little, and bruise the stalks. Infuse for a month, stirring it occasionally. Filter and bottle.

Vespetro.—Coriander-seed one ounce, angelica-seed two ounces, fennel and anise-seed of each two drachms, two lemons, two oranges, the zest of two citrons, two quarts of rectified spirit and two pounds of sugar, caraway-seeds four grains. Bruise the ingredients, pare off the yellow rind of the lemons and oranges, and squeeze the juice. Dissolve the sugar in

a pint of water. Infuse the whole together for fourteen days. Strain, filter, and bottle.

Chrême de Barbade.—The yellow rind of three oranges and three lemons, cinnamon four ounces, mace two drachms, cloves one drachm, rum nine quarts, fresh balm leaves six ounces. Infuse and distil in the bain-marie, or strain; add an equal quantity of sugar with water.

Chrême d'Orange.—Thirty-six sweet oranges, sliced, tincture of saffron one ounce and four drachms, orange-flower water four pints, rectified spirits two gallons, water eighteen quarts, loaf-sugar eighteen pounds. Dissolve the sugar in the water: mix the other articles and infuse for a fortnight. Filter and bottle.

Ratafia d'Anis.—Star anise-seed four ounces, proof spirit one gallon. Infuse for a fortnight; add two pounds of sugar, or a pint and a-half of syrup, and a little essence of vanilla.

Ratafia de Brout des Noix.—Young walnuts, when the shells are not formed, number eighty, mace, cinnamon, and cloves, of each half a drachm, proof spirit one gallon. Pound the nuts in a mortar, add them and the spice to the spirit, with two pounds of sugar. Infuse for two months, stirring it occasionally; press out the liquor through a cloth. Filter and bottle.

XXV.—THE STOVE.

This is a useful and indispensable appendage in confectionary; it is generally constructed like a cupboard in the recess of a wall. The walls or sides should be composed of bricks, or wood lined with tin or sheet iron, to retain the heat, with pieces of wood nailed or fastened in the sides, about four inches asunder, to form a groove for trays or boards to rest on, which is necessary for the drying of lozenges, comfits, bon-bons, &c.; there should also be a few

strong shifting shelves made either of small bars of round iron or wood, like a grating, on which candy pots or sieves may be placed; the grooves for these should be so constructed as to be capable of inclination so as to drain off the syrup from the candy pots without taking them from the shelves; the door should be made to shut close, with a small door at the top to let out any excess of heat. I have before remarked that it may be heated by means of many of the modern stoves. At places where the oven is heated with wood, furze, &c., a common iron pot or crock with three legs is filled with the live embers, or it may be filled with burning charcoal and covered with wood ashes, which is replenished night and morning, and gives the heat required.

APPENDIX.

SECTION II.—SYRUPS.

Improved Syrup of Almonds. Sirop de Orgeat.

—One pound of sweet almonds; five ounces of bitter almonds; or, if a stronger flavour of the bitter almonds is preferred, use eight ounces; picked gum arabic one ounce; water three pounds four ounces; double orange-flower water from four to six ounces; sugar six pounds.

Proceed as directed page 18, with the exception of using a pound and a half of the sugar in pounding the almonds before adding any portion of the water, when sufficient only should be used to make the sugar and almonds into a stiff paste. This paste should then be divided into six or eight parts, and pounded separately until very fine; then add the water gradually to the whole of the paste—reserving sufficient to dissolve the gum—and press through a cloth as before directed, page 18. When the whole of the milk is obtained, add the rest of the sugar and the dissolved gum, and keep it well stirred occasionally to dissolve the sugar; or it may be dissolved by giving it a boil or two over the fire. Finally, pass the whole again through the cloth, and add the orange-flower water. The addition of the gum helps to prevent that separation between the milk of almonds and syrup that takes place after it is bottled, by making the syrup of a greater consistence.

Sirop de Pistache can also be made in the same manner, observing that only good pistachio kernels should be used.

SECTION IV.—CANDY.

Cocoa Nut Ice, or Candy.—Grate the inside of a cocoa nut fine; mix about six or eight ounces of the grated nut with a pound of sugar; use water to moisten the sugar in the proportion of a pint to three pounds. Boil to the bare crack; grain the sugar by rubbing some of it against the side of the pan, and pour it into oiled or buttered tins. Some give it an additional flavour by adding to it a little *raspberry jam*, or orrice powder, which will also give it something the flavour of raspberry, if *a little* tartarie acid is used with it. With the jam more particularly it forms a most delicious compound. It should be coloured with prepared cochineal to give it the red colour of raspberries, otherwise it should be white. Machines are now becoming generally used for preparing the cocoa nut.

Candy similar to Rock Sugar.—It is generally termed plum, currant, or almond candy. To three pounds of sugar put one pint of water, boil to *the bare crack*, take it from the fire and beat it with a spatula in the same manner as whisking eggs; as soon as it begins to froth, or rise, in the pan, pour it into tins previously buttered and covered with split almonds, currants, or stoned raisins, and immediately cover it with the pan turned upside down. It may be coloured in the boiling with cochineal, or saffron. Flavour the white with peppermint, or essence of bitter almonds; pink, with otto of rose; and yellow, with essence of lemon, or ginger.

Best Burnt Almonds—Red.—For each pound of sifted almonds use two pounds and a half of loaf sugar, made into a syrup. A round bottomed copper pan is the best for making these in. The almonds may be boiled in the sugar until they crack, before

being taken from the fire to be stirred and separated for the second coat; or, when the sugar is boiled to the ball, the almonds may be put in; then take it from the fire and stir them well with a spatula that the sugar may grain, and each almond have a coating. Put the pan on the fire again, and keep them constantly stirred, that the loose sugar may melt and burn about them of a fine brown. Either way will give them the burnt flavour, from which they take their name. Turn them out into a coarse sieve, sift all the loose sugar from them, and separate those that stick together. Boil the same quantity of clarified syrup as before to the feather, and colour it to the desired shade with prepared cochineal. Let it attain the same degree again before taking the syrup from the fire, then put in the almonds and stir them as before until the sugar grains, and again sift and separate them.

The sugar for the third coating must not be boiled quite so high as the last, and there must be only sufficient to just cover them. Immediately the sugar begins to grain about them, turn them out on the stone, and cover them with the pan or a cloth. After a few moments separate them, and put them in boxes, or glasses, when cold.

The colour of these almonds is considered to be much brighter when the syrup is boiled rather higher than the required degrees for the second and third coats, and the colour added to reduce it, after it is taken from the fire.

SECTION V.—CRACK AND CARAMEL.

Acid Drops.—These are best made with loaf-sugar. To ten pounds put half an ounce of cream of tartar with the water, and boil to the crack. Pour

it on the stone, and work in, as directed in page 28, two ounces and a half of finely powdered tartaric acid. Instead of making it into drops by hand, as described page 28, they are now done by means of a machine, called a "drop machine." The rollers are either slightly oiled before a thin sheet of the sugar is passed through them, or the sheet of sugar itself is dusted with finely powdered sugar. In large establishments all kinds of drops, balls, and, in some, sticks also, are made by machines.

Raspberry Drops are made as acid drops, with the addition of orrice powder, and the sugar is coloured red in the boiling with prepared cochineal.

Raspberry Rock, or Sticks.—In this preparation orrice powder, with a little tartaric acid, is frequently used as a substitute for raspberry paste, being used in the same manner; see page 29.

SECTION VII.—LOZENGES.

THE principal thing to be observed in the making of these, is to have the dissolved gum of sufficient strength or consistence to hold a sufficient body of sugar without losing its adhesive or gummy nature. Without this the paste becomes, as it were, rotten, being short, not easily rolled out without the surface being full of cracks, nor can that fine smooth "face" be given to the lozenges that good ones always possess.

One pound of gum arabic should be dissolved in about a pint of water, not more. This should be used for making all kinds of peppermint, rose, ginger, or other lozenges not strictly termed "medical lozenges," as it gives them a clearer and better appearance.

The following proportions may be used for all lozenges:—Two pounds and a half of gum Arabic dissolved in a quart of water, and one ounce of gum tragacanth in half a pint of water.

The Commonest Peppermint Lozenges are made with half farina (prepared starch), and half loaf-sugar, of second quality. A little Smalts blue is added to make them of a good colour.

Patta Rosa.—Rose lozenges, see page 41, with the addition of a little tartaric acid.

Zinc Lozenges.—Sulphate of zinc one ounce, sugar four pounds.

Mix into a paste with prepared gum. Each lozenge should contain half a grain of zinc.

Sponge Lozenges.—One pound of sugar, twelve ounces of burnt sponge, sufficient gum Arabic dissolved in rose water to make into a paste. Used in bronchocele and scrophulous complaints.

Bath Pipe.—Powdered gum Arabic ten ounces, Spanish juice thirteen ounces, lawned sugar thirteen and a half pounds, tartaric acid one ounce. Dissolve the liquorice; strain, evaporate to a thick consistence, and keep it covered with a damp cloth to prevent drying. When it is cold, work in the sugar, acid, and gum, as for lozenges, and make into pipes. See page 45.

Colts-foot Rock.—One pound of solazzi juice (Spanish liquorice) dissolved in three parts of a pint of water; two ounces of gum dragon (tragacanth), dissolved in one pint and a quarter of water; twenty-eight pounds of lawned sugar, one ounce of essence of lemon, and two ounces of extract of poppies. Colour with Spanish brown. Make into a paste. This paste, instead of being made into pipes or cylinders, as the last, is forced through a metal tube with a plate at the bottom, having holes at the bottom similar to a star, by the means of a screw. It is then cut into lengths, and dried.

Pectoral Lozenges of Ementine.—Sugar one pound, ementine five drachms, dissolved gum sufficient to make a paste; colour with carmine, and make 1300 lozenges. These are taken occasionally in

chronic coughs, hooping cough, and chronic diarrhœa. More than one at a time will cause nausea.

Pure Ementine Lozenges.—Sugar one pound, pure ementine twenty-four grains, and sufficient gum to make a paste. Make 1040 lozenges. Emetic.

THE CONSTRUCTION OF AN ICE-HOUSE.

THE qualities that constitute a good ice-house are—

1st. That it be always perfectly dry, for damp air is more injurious to the ice than warmth.

2nd. To be of a temperature cold enough to prevent the ice melting.

3rd. A perfect drainage for the water that runs from the ice.

4th. That the exterior air be completely excluded.

To obtain these essential qualities, choose, if possible, a soil of sand, gravel, or chalk; or if these cannot be obtained, a light dry earth on which to build the house. If on the side of a hill, or rising ground, the better; and with these soils, no other drainage will be required than that produced by the natural absorption of the earth: but if this should prove not sufficient to carry off the water, a drain can then easily be made from the bottom of the well in the hill.

The aspect of the house should be towards the east, or south east, that the rays of the morning sun may expel the damp air.

The top of the well should be covered, first with an arch of stone well filled with grout, or of brick-work covered with cement: over this a layer of clay and earth, from one to two feet thick, which may be planted with shrubs or small plants, to protect it from the rays of the sun. This will also give it a picturesque appearance. Instead of covering the clay with earth, it may be covered with thatch, which is a non-

conductor of heat ; but this should be on a frame of woodwork, about a foot distant from the clay, or a warmth may be communicated to the well and injure the ice.

To enter the ice-house a passage should be made towards the north, with two doors—an interior and exterior—with sufficient space between to admit a person to enter and close the outer door before opening the inner one, to allow the admission of as little air as possible while taking out the ice. In this passage all kinds of provisions may be kept, especially in the summer, to preserve them. The doors of the passage should be made of well-seasoned wood, so as not to shrink, and they should be well fitted.

The usual form of ice wells is that of a sugar loaf reversed, being smaller at the bottom than the top. The depth is not so much an object *as perfect drainage*. It may be made of any width. A large ice-house is better than a small one, for the larger the body of ice there is together, the better it will keep. By digging an ice-house too deep, it is more liable to be exposed to a dampness that causes the ice to melt.

The side of the well is usually lined with brick or stone. If economy is an object, wood may be substituted ; or if the well is formed in dry gravelly soil, no lining will be required to keep the ice from the sides, but the straw usually placed round for that purpose.

When the soil is naturally damp or wet, greater precautions must be taken, and more expense incurred, in constructing the well, to preserve the ice perfectly. In this case the principal object to be observed is, to separate or isolate the well and ice from the surrounding earth. * This may be done by constructing the well with double walls (for economy the inner one may be of wood), and filling between them with chalk or well-beaten clay, or some dry material, as gravel, chaff, or

stubble, each of these last being also good non-conductors of heat. If in a clay soil, be particular to make a small well in the centre at the bottom to receive the water that drains from the ice, and this should empty itself into a common sewer or rivulet by the side of the well. The drain should be air-tight, with a proper descent, to allow the waste water to run off. An air-tight drain is made by constructing, at some distance from the mouth, a kind of basin, into which the water will flow. From the top of the drain a stone is fixed, to come about half way or rather more to the bottom of the basin, which being always full of water, prevents the air passing through the drain to the ice. The bottom of the well should also be made sloping towards the smaller well or basin in the centre, over which should be placed a grating of iron or wood to prevent the ice falling through, and to facilitate the drainage of the water. If there is no rivulet or sewer for the water to run into, a well should be made on the outside, with a pump to pump it up, or some means of drawing out the water, for if suffered to rise to a level with the ice, it will soon melt. An ice-house eighteen feet from the crown to the trellis, and twelve feet in diameter, will contain one hundred two-horse cart loads or fothers of ice.

An ice-house should not be built in a place subject to inundations, as the water will at such times enter the well, in spite of all precautions, and spoil the ice.

The ice will melt in a new ice-house when the walls are not perfectly dry, but seldom a second year. Sometimes in a well-closed ice-house a little dampness, either at the bottom or sides, will rise in a kind of vapour, which, for want of occasional ventilation, is precipitated again upon the ice, and makes it soft.

A simple method of making A SMALL ICE-HOUSE FOR DOMESTIC PURPOSES is, to obtain two large

casks, but one must be smaller than the other to place inside the larger one. The space between the two casks should be well filled with finely powdered charcoal, which is a non-conductor of heat, and holes should be made in the bottom to admit any water that drains from the ice to run off. These casks may be sunk in the ground in a cool cellar, taking care that means be adopted to allow the water to drain off freely. A cover should be made to fit these casks, over which may be placed some charcoal or other non-conductor, and be made to fit closely, to prevent any access of air. Sufficient ice may be preserved in this manner for the use of a small family, at little expense.

An excellent and simple method of preserving ice, and making ice wells, is one practised in Italy. "Ice may be preserved in a dry place under ground by covering it well with chaff, straw, or reeds. Great use is made of chaff in some places of Italy to preserve ice: the ice-house need only be a deep hole dug in the ground on the side of a hill, from the bottom of which they can easily carry out a drain to let out the water separated any time from the ice, that it may not melt and spoil the rest. If the ground is tolerably dry, they do not line the sides with anything, but leave them naked, and only make a covering of thatch over the top of the hole. This pit they either fill with pure snow, or else with ice taken from the purest and clearest water, because they do not use it as we do in England to set the bottles in, but really mix it with the wine. They first cover the bottom of the hole with chaff, and then lay in the ice, not letting it anywhere touch the sides, but ramming in a large bed of chaff all the way between; they thus carry the filling to the top, and then cover the filling with chaff. Ice packed in this manner will keep as long as they please. When they take any of it out for use,

they wrap up the lump in chaff, and it may then be carried to any distant place without waste or melting.” —*Encyclopædia Britannica*. Saw-dust is used in England for wrapping up ice to be sent to a distance.

TO FILL THE ICE-HOUSE.—Cold and *dry weather* should be chosen; and if the ice is two or three inches thick, no opportunity should be lost in obtaining it. In a dry soil, where there is no drain or small well in the centre, the bottom should be covered with billets of small wood, brushwood, or bushes, in preference to straw, to raise the ice from the bottom. Before filling, let the ice be well beaten, or broken small at the mouth of the well. While one person is throwing the broken ice into the well, another should be in the well to beat it down, that there may be as few cavities as possible. If snow is on the ground, it would be as well to mix some with the ice in filling, which will serve better than anything to fill up the vacancies, and render the whole solid and compact. Some recommend strewing the ice with salt, at intervals; but this, although it will cause the ice to freeze hard at first, will afterwards melt it. With a newly built ice-house, boards should be placed next the wall, and then straw, which must be used on all occasions. When the well is full, cover the top with straw. The passage leading to the well may also be filled with ice to be used at first. This should also be well covered with straw, and the outer door be made as air-tight as possible.

Snow may likewise be preserved in a well. For this purpose it should be collected on a dry day, and in large balls. The well being lined with straw, these balls of snow are to be placed thickly together, and be well beaten, to render the whole a close compact mass. When the weather is very cold, it is difficult to get them together by beating, from their hardness; therefore a little water should be poured over them.

Snow will also keep better if a little water is thrown over it now and then. When the well is full, cover the top of the snow thickly with straw.

For freezing ices any kind of salt will do; but that which takes the greatest quantity of water to dissolve it, produces the most intense cold. Bay salt is by many preferred to the fine, for this purpose.

Nesselrode Pudding, or Ice a la Naraskin.—This is a similar preparation to the ice pudding described at page 97; but instead of being made with only custard, and fruit cut in dice, chesnuts or almonds are also added.—Take off the husks and inside skin of three dozen chesnuts; boil them in a thin syrup until tender; then pound them fine in a fine mortar, with a little of the syrup they were boiled in. Stone and cut in half four ounces of fine raisins, and put them, and two or three ounces of cleaned currants, into the syrup the chesnuts were boiled in, to swell. Make a custard with a pint of cream, half a pint of milk, five or six yolks of eggs, sufficient sugar to sweeten, and the pounded chesnuts. Flavour with vanilla; some also add a glass of maraschino. When cold, freeze; then drain the syrup from the raisins and currants, and add them, together with two or three preserved apricots and greengages, and about two ounces of citron peel cut in dice, to the frozen custard. When well frozen, put it into a pudding mould, and set in fresh ice and salt. M. Careme recommends that a plate full of whipped cream and the whites of three eggs, made into a meringue, should be added, when the pudding is well frozen.

Instead of the chesnuts, some use, from four to six ounces of blanched sweet almonds; but with these it cannot be called a Nesselrode pudding, not being used for the puddings made for Count Nesselrode, and approved of by him.

Similar puddings may be made *ad infinitum*, accord-

ing to the fancy and approved taste of those who may make, or patronize them, the basis of all being similar, the principal difference being in the flavours given to them. They may be made with pistachio, filbert, coffee, ratafia, Curacoa, pine-apple, or other similar ices. A similar preparation to a cabinet pudding—that is, a custard, made as directed page 97, to which add some crumbled stale savoy cake, with a few ratafias and macaroons. Flavour it with any kind of liqueur, wine, or brandy, and add some preserved fruit cut in dice, when frozen: makes a very excellent ice pudding. I have frequently made it for parties, and it has been invariable approved of.

Ice puddings have lately been much introduced at fashionable tables under various names: to describe them, would be but a repetition of similar instructions to that just given, which will be sufficient to enable any person of ordinary tact to *invent* as many as he pleases, or he can find patrons for.

THE END.

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